# On the Grammar of Optative Constructions

by

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Submitted to the Department of Linguistics and Philosophy
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## Abstract

The primary aim of this dissertation is to present an analysis for so-called *optative constructions*, clauses that express a wish, hope or desire without containing a lexical item that means 'wish', 'hope' or 'desire'. A secondary aim is to contrast optative constructions with so-called *polar exclamatives*, clauses that express surprise, shock or dismay at a given fact without containing a lexical item that means 'surprise', 'shock' or 'dismay'. The goal is to better understand the way in which syntax, semantics and pragmatics interact in order to yield the meanings and uses that these constructions have.

The core claim is that we can understand optative constructions by virtue of exploring three properties that they share. First, I argue that optatives (and polar exclamatives) contain a generalized exclamation operator *EX*, which serves to express an emotion towards the status of the modified proposition on a contextually provided scale. Second, I argue that semantic mood (including factivity and counterfactuality) is encoded in a distinguished Mood head, the content of which co-determines both morphological mood and the material that overtly surfaces in the position of C. Third, I argue for a generalized analysis of prototypical particles, including non-exclusive ONLY, concessive AT LEAST and unstressed DOCH. My analysis treats these particles as truth-conditionally vacuous presupposition triggers, which interact with optativity in three different ways. First, they convey additional information with respect to the modified proposition. Second, they eliminate alternative readings for an ambiguous clause, due to incompatibility. Third, this disambiguating role makes them ideal licensors for a marked utterance type.

Chapter 1 of this dissertation is an introductory chapter that presents the core proposal in a nutshell. After this coarse overview, chapter 2 reviews some basic definitions and background on optatives and polar exclamatives. Subsequently, I proceed to a presentation of my entire system in chapter 3. The following chapters discuss each of the three core parts in turn, starting with the EX operator in chapter 4, followed by semantic mood in chapter 5 and finally I discuss particles in chapter 6. Chapter 7 concludes.

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*For my parents, Maria and Hans Grosz.*

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# Table of Contents

## 1. Introduction: The Proposal in a Nutshell

*Optative utterances* express a wish, regret, hope or desire without an overt lexical item that means *wish*, *regret*, *hope* or *desire* (cf. Quirk et al. 1972, 1985, Scholz 1991, Rosengren 1993, Rifkin 2000, Asarina & Shklovsky 2008, Biezma 2011ab), as illustrated in (1). Optative utterances exhibit variation along several different axes, two of which can be stated as follows. First, optatives allow for form variation in their left periphery. The optative in (1a) is initiated by *that*, whereas its counterpart in (1b) is initiated by *if*.

(1) a. Oh, **that** I had told them both a year ago!
(Martin F. Tupper. 1851. *The Twins; A Domestic Novel.* Hartford: Silas Andrus.)[1]

b. **If** only I had told them both a year ago!

Second, optatives vary in terms of the prototypical particles that they contain; (2a) contains *only*, (2b) contains *just*, and (2c+d) contain *but*. A large part of this project is dedicated to the study of *only* and its cross-linguistic counterparts (e.g. German *nur*).

(2) a. If I'd **only** listened to my parents!
b. If I could **just** make them understand my point of view!
c. If I could **but** explain!
(Quirk et al. 1985:842)
d. Oh that Apollo would **but** drive his horses slowly, that the day might be three hours longer; for it is too soon to depart, [...]
(A. Marsh. 1682. *The Ten Pleasures of Marriage.* London: The Navarre Society.)[2]

A core puzzle arises from the apparent obligatoriness of particles in (2). English speakers share the intuition that (3), particle-free variants of (2a+b), are not well-formed optatives; in contrast, they appear to be incomplete conditionals. One goal is to account for this fact.

(3) a.# If I'd listened to my parents!
b.# If I could make them understand my point of view!

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[1] http://www.gutenberg.org/dirs/1/6/5/7/16574/16574-8.txt
[2] http://www.gutenberg.org/files/13872/13872-h/13872-h.htm

We face an apparent compositionality problem: For instance, can we derive the core meaning of an optative like (2a) compositionally from the standard meaning of an *if*-clause and the standard meaning of the particle *only*?

The answer that I propose radically differs from previous approaches to optativity[3]. I reject the idea that optativity arises compositionally from the standard meaning of *if*-clauses and the standard meaning of particles. In contrast, I argue that optativity is inherently independent from the presence of such particles. To account for the quasi-obligatoriness of such particles, I argue that the semantics of the particles conspires with the semantics of an optative utterance, giving rise to the connection that we observe.

First, I argue that optative utterances are a variant of exclamative utterances, the meaning of which is due to a null operator *EX*. *EX* selects a contextually salient scale and conveys that the modified proposition exceeds a salient threshold on that scale. (Both *if*- and *that*-clauses can be complements to *EX*.) In optatives, the relevant scale reflects the speaker's preferences, cf. (4). Crucially, the lexical meaning of *EX* is weak. It simply indicates that the modified proposition is relatively high on a contextually given scale.

(4) a. $EX_{Scale:Speaker\text{-}Preferences}$ [(oh) that I had told them both a year ago]!
b. $EX_{Scale:Speaker\text{-}Preferences}$ [if only I had told them both a year ago]!
c. Core meaning (due to EX): $[_p$ I told them both a year ago] exceeds the threshold $\xi$ on a scale that reflects the speaker's preferences in the utterance context.

My analysis treats various types of exclamations uniformly, including *polar exclamatives* (utterances that express surprise at a fact), cf. (5a). Such exclamatives also contain *EX*. Polar exclamatives only differ in the scale they select (roughly: *unlikelihood*), cf. (5b).

(5) a. That you could ever want to marry such a man! (Quirk et al. 1985:841)
b. $EX_{Scale:Speaker\text{-}Unlikelihood}$ [that you could ever want to marry such a man]!

Similarly, I argue that particles in optatives involve *weaker* readings than their standard counterparts. For instance, while the standard (exclusive) $ONLY_1$ meaning of *only* is most

[3] For English *if only* optatives, such a project has been pursued in the past by Rifkin (2000), Asarina & Shklovsky (2008), Biezma (2011ab).

aptly paraphrased as 'no more than', I argue that *only* has a second ONLY$_2$ reading. ONLY$_2$ is truth-conditionally vacuous and (on a level of non-truth-conditional meaning) conveys 'lowness' of the proposition that it modifies with respect to a salient scale. I argue that optatives involve ONLY$_2$, schematized in (6)[4].

(6) $||\text{ONLY}_2(\phi)||$ is defined iff $\phi$ is low on a salient scale. If defined, $||\text{ONLY}_2(\phi)|| = ||\phi||$.

It follows that optativity does not compositionally arise from the presence of the particles *only*, *just* or *but*. I argue that their quasi-obligatoriness is due to the following semantic conspiracy. As discussed above, *EX* contributes generalized exclamativity, one shade of which is optativity, while particles (such as ONLY$_2$) contribute non-truth-conditional meaning. The contribution of *EX* is thus orthogonal to that of the particles. However, utterances with the shape of an optative typically have various readings, some of which are more marked than others. Example (7a) has an optative reading, given in (7c). Nevertheless, the non-optative reading in (7b) is less marked. I propose that the *blocking* of (7c) is due to extra-grammatical principles that govern successful communication.

(7) a. # If I'd listened to my parents!
   b. **unmarked** reading: *# conditional antecedent* (infelicitous, because incomplete)
   c. **marked** reading: ✓*optative utterance* (good, but somehow blocked)

I argue that particles bias marked readings, due to implicatures that they trigger or due to incompatibility with unmarked readings. This reverses interpretive preferences, cf. (8).

(8) a. ✓If I'd **only** listened to my parents!
   b. **dispreferred** unmarked reading: *# conditional antecedent*
   c. **preferred** marked reading: ✓*optative utterance*

I proceed to account for the deviant status of (7a) by making standard assumptions on rational discourse participants (cf. Lewis's 1969 *signaling games*). I argue that to warrant

[4] Strictly speaking, English *only* is more specialized (and cross-linguistically less typical) under its ONLY$_2$ reading, in that it restricts the salient scale to a bouletic scale (similar to Nakanishi & Rullmann's 2009 concessive *at least*). The generalized entry in (6) captures the meanings of cross-linguistic equivalents, such as German *nur* 'only' and Czech *jen* 'only', whose ONLY$_2$ readings are not restricted to bouletic scales.

successful communication, the speaker will use particles to bias a marked reading whenever the context is insufficient to eliminate a less marked reading. Correspondingly, a hearer will interpret particle-free utterances according to contextual bias (i.e. prior probability). Given that the unmarked readings have a higher probability, (7a) will always be interpreted (and intended by the speaker) as the conditional fragment in (7b) and not as the optative in (7c). This derives the quasi-obligatoriness of particles in optatives.

To summarize, I argue against an approach in which the meaning of particles is a compositional ingredient of the desirability that optatives convey. Opposing such a view, I argue for a new perspective that can be stated as follows. The core meaning of an optative is independent from the meanings of particles that it contains, but the two meaning components conspire to give rise to the quasi-obligatoriness of such particles.

# 2. Prolegomena: Definitions, Terminology and Other Basic Matters

So-called 'optative constructions' are currently underrepresented in formal linguistic research. Therefore, this chapter discusses some basic definitions, terminology and other matters that need to be addressed before investigating the formal syntax and semantics of such constructions. Section 2.1 introduces the subject matter of this dissertation, defining a number of relevant descriptive concepts. Section 2.2 focuses on the English *if only* construction, which is a familiar optative construction that has been addressed before (Rifkin 2000, Asarina & Shklovsky 2008, Biezma 2011ab). By reviewing arguments from Rifkin (2000) and adding a new argument, I dispel the hypothesis that *if only* is a lexicalized (idiomatic) expression (one might call this view the 'idiom hypothesis'). However, I also argue against a special status of *only* as an optativity marker, and I argue in favor of a set of meanings that correlate with optativity, including the meanings of *only*, *at least* and *but*.

## 2.1 Optatives – Definitions and Illustrations

### 2.1.1 Optative Basics: Introducing *if*-Optatives, *that*-Optatives and V1-Optatives

Let me open this discussion with some illustrations of the topic of investigation. Example (9) illustrates an *optative utterance* of the type that I investigate (cf. Quirk et al. 1972, 1985, Scholz 1991, Rosengren 1993, Rifkin 2000, Asarina & Shklovsky 2008, Biezma 2011a). (The translation by means of *if only* should not obscure the fact that the Latin original in (9) does not contain a particle that means 'only', and that the Latin original uses the complementizer *that* instead of *if*.) I define *optative utterance* as an utterance that expresses a wish, regret, hope or desire without containing a lexical item that means *wish*, *regret*, *hope* or *desire* (cf. Rifkin 2000, Asarina & Shklovsky 2008). Optatives are typically perceived to be a type of *exclamation* (defined as utterances that are predominantly used to exclaim), cf. Quirk et al. (1972, 1985), Rifkin (2000).

(9) Utinam ne … tetigissent litora puppes *Latin*
that not touch.3pl.plup.subj shores ships (Catullus 64.171-172)
'[Almighty Jupiter,] **if only** the [Attic] ships had never touched the [Knossian] shores!'
(adapted from Palmer 2001:217, translation is mine)

The Latin example in (9) clearly fits the above definition of an optative utterance. The meaning that is expressed can be roughly paraphrased as in (10a) or (10b). (All paraphrases are preliminary, and nothing hinges on the choice between the two.)

(10) a. **I wish** [that the Attic ships had never touched the Knossian shores].
b. **It would be good** [if the Attic ships had never touched the Knossian shores].

Translating (9) to German, we find a wide range of constructions that comply with the definition above. They can be described in terms of two factors, illustrated in the following examples. The first factor is the complementizer that they choose (*if* versus *that*; a third option is the lack of a complementizer); the second factor is their grammatical mood (*counterfactual/subjunctive*[5] versus *non-counterfactual/indicative*). One prototypical property of optative utterances is that they have the distribution of unembedded utterances but the morphosyntax of an embedded clause[6]. I define *(independent) if-optative* as an *if*-clause that expresses a wish without a *wish* lexical item and is not accompanied by an overt matrix clause. This is illustrated in (11) for German. (11a) is a counterfactual *if*-optative and (11b) is a non-counterfactual *if*-optative.

(11)a. *subjunctive, counterfactual if-optative*

Ach, **wenn** ihre Schiffe unsere Ufer doch nur nie erreicht hätten!
oh if their ships our shores DOCH only never reached had
'Oh, if only their ships had never reached our shores!'

b. *indicative, non-counterfactual if-optative*

Oh, **wenn** ihre Schiffe unsere Ufer nur JA nie erreichen!
oh if their ships our shores only JA never reach
'Oh, if only their ships will never reach our shores!'

---

[5] I remain agnostic as to whether there are non-counterfactual subjunctive optatives (but see Scholz 1991).
[6] This fact gives rise to the intuitive (but wrong, as I will argue in section 4.1.4) view that optatives involve an elided matrix clause (cf. Evans 2007).

In analogy to *if-optative* we can define *(independent) that-optative* as a *that*-clause that expresses a wish, desire or hope without a corresponding lexical item and is not accompanied by an overt matrix clause. Example (12) illustrates *that*-optatives in German.

(12)a. *subjunctive, counterfactual that-optative*

Ach, **dass** ihre Schiffe unsere Ufer doch nur nie erreicht hätten!
oh that their ships our shores DOCH only never reached had
'Oh, that only their ships had never reached our shores!'

b. *indicative, non-counterfactual that-optative*

Oh, **dass** ihre Schiffe unsere Ufer nur JA nie erreichen!
oh that their ships our shores only JA never reach
'Oh, that only their ships will never reach our shores!'

Finally, we can define *V1-optative* as a *V1*-clause that expresses a wish, desire or hope in the same way, but employs (V-to-)T-to-C movement instead of an overt complementizer. Example (13a) illustrates a counterfactual V1-optative. Example (13b) shows that indicative V1-optatives cannot be formed by simply fronting the verb. They require an additional existential modal, as in (13c) (cf. Gärtner 2010). One may call (13c) a *may-optative* (see Portner 1997 for reasons to treat *mögen* 'may' as a mood marker rather than a verb or modal auxiliary, so (13c) may not technically be a construction that involves T-to-C movement).

(13)a. *subjunctive, counterfactual V1-optative*

Ach, **hätten** ihre Schiffe unsere Ufer doch nur nie erreicht!
oh had their ships our shores DOCH only never reached
'Oh, had their ships only never reached our shores!'

b. *ungrammatical indicative, non-counterfactual V1-optative*

* Oh, **erreichen** ihre Schiffe unsere Ufer nur JA nie!
oh reach their ships our shores only JA never
'Oh, reach their ships only never our shores!'

c. *indicative, non-counterfactual may-optative*

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Ach, | **mögen** | ihre | Schiffe | unsere | Ufer | nur | JA | nie | erreichen! |
| oh | may | their | ships | our | shores | only | JA | never | reach |

'Oh, may their ships never reach our shores!'

Having thus established some basic definitions, we can formulate the main questions of this research project as follows. On the one hand, how should the semantics and pragmatics of optative constructions be analyzed and formalized? On the other hand, what is their syntax? Specifically, do they have the same structure and meaning as non-optative embedded clauses or do they have a distinct structure and meaning? Two crucial questions here are whether the perceived wish is derived compositionally and whether the particles that occur in optatives trigger that wish (cf. Rifkin 2000, Asarina & Shklovsky 2008). The last question is particularly prominent in English, where optatives typically require the particle *only*, illustrated in (14) versus (15); all of the examples in (14) and none of the examples in (15) have an optative reading.

(14) a. **If** you **only** knew the power of the dark side.
(Leigh Brackett & Lawrence Kasdan. 1980. Screenplay for "Star Wars Episode V: The Empire Strikes Back".)

b. **If** he **only** had some one with whom he could talk.
(Brayton Norton. 1929. *El Diablo*. Indianapolis: The Bobbs-Merrill Company Publishers.)

c. **If only** literature could be a cellphone-free zone.
(Matt Richtel. 2009. "If Only Literature Could Be a Cellphone-Free Zone", article for the New York Times, online edition, April 11, 2009.)

(15) a.# If you knew the power of the dark side.

b.# If he had some one with whom he could talk.

c.# If literature could be a cellphone-free zone.

While we will see that other languages are much more flexible in this regard, English seems to rely strongly on *only*, making it useful to define *optative particle* as a particle that, when placed into an *if*-clause (or *that*-clause or V1-clause), turns it into an *if*-optative (or *that*-optative or V1-optative). This is a purely descriptive definition with no

theoretical import; I will show that many optative particles do not seem to be 'optative' on their own[7]. The problem that optative particles raise is stated by Rifkin (2000) for the particle *only*, and can be summarized as follows: Many languages have *if*-optatives that involve an *if*-clause and a particle that means *only* (see section 2.2 of the present chapter and section 6.2). Given that neither *if*-clauses nor *only* are optative on their own, the question arises whether *if* and *only* compositionally interact in a way that gives rise to optativity. I adopt this research question as another main question to be addressed in this dissertation; however, I will extend it to other optative particles, such as particles that mean *at least* and *but/though* (see section 2.2).

For much of this dissertation, I will be focusing on *if*-optatives and less so on *that*-optatives. However, the latter are cross-linguistically well-represented and they also occur productively in early Modern English, as shown in the illustrations in (16). Therefore, it would be premature to assume that *if*-optatives are less marked than *that*-optatives. As shown in (16a-c), English *that*-optatives do not require an optative particle, and, if there is an optative particle, it is *but*, as in (16d+e)[8]; I will come back to *but* in section 2.2.

(16) a. **Oh, that** I had told them both a year ago!
(Martin F. Tupper. 1851. *The Twins; A Domestic Novel*. Hartford: Silas Andrus.)[9]

b. "My father!" she added, almost mournfully; "**oh, that** I had never left you!"
(T.S. Arthur. 1868. *After the Storm*. Philadelphia.)[10]

c. "Oh! what a charming creature thou art! What a happy man will he be that first makes a woman of you! **Oh! that** I were a man for your sake!"
(John Cleland. 1749. *Memoirs of Fanny Hill*. Paris: Isidore Liseux.)[11]

---

[7] English *only* in optatives seems to be the exception rather than the rule in being a specialized optative element, cf. section 6.2.2.

[8] In fact, it is not clear that *but* in (16e) acts as an optative particle, as the most natural paraphrase in terms of a *wish*-statement would be (i), in which *but* is replaced by *only*; in (16d) this is less clearly so.

i. **I wish I only** had to turn and embrace my [...] grandmother.

[9] http://www.gutenberg.org/dirs/1/6/5/7/16574/16574-8.txt

[10] http://www.gutenberg.org/dirs/etext03/ftrth10.txt

[11] http://www.gutenberg.org/files/25305/25305-h/25305-h.htm

d. **Oh that** Apollo would **but** drive his horses slowly, **that** the day might be three hours longer; for it is too soon to depart, and that for fear of a pocky setting of the Watch.
(A. Marsh. 1682. *The Ten Pleasures of Marriage.* London: The Navarre Society.)[12]

e. **Oh! that** I had **but** to turn and embrace my kind, good, benevolent, and much respected grandmother.
(Anonymous. 1836. *Sketches by Seymour*. London: Thomas Fry.)[13]

At this point, a discussion of the descriptive link between *if*-optatives and garden-variety *if*-clauses is in place. I address this link in the next section.

### 2.1.2 *If*-Optatives are not Optative Conditionals

The purpose of this section is to briefly contrast *if*-optatives with conditionals that have optative properties (which I call *optative conditionals*); the objective is to narrow down the scope of our discussion to the former. To begin with, Rifkin (2000) gives us reason to distinguish between two separate types of optative constructions that involve *if*-clauses. He notices that we should differentiate between *independent if-optatives*[14] (which he himself calls *if only p! constructions*), (17a), and *optative conditionals* (which he calls *if only p, q constructions*), (17b). I define *optative conditional* as a conditional clause with an antecedent that can also be used as an independent *if*-optative and appears to convey a wish (e.g. by virtue of containing an optative particle). I will use the term *optative antecedent* to refer to the antecedent of an optative conditional, as illustrated in (17b).

(17) a. *independent if-optative*
If only it would snow!

b. *optative conditional*
If only it would snow, things would be good.
*optative antecedent*

[12] http://www.gutenberg.org/files/13872/13872-h/13872-h.htm
[13] http://www.gutenberg.org/files/5650/5650-h/p4.htm
[14] *Independent if-optative* and *optative conditional* are my terminology.

The fact that optative antecedents in English express a wish even though they are embedded in an optative conditional is shown in my examples (18a) and (18b). (18a) has a non-optative conditional semantics, under which the speaker does not express any evaluation with respect to the antecedent. In contrast, (18b) only has a reading under which the speaker expresses a positive evaluation of the antecedent; in other words, (18b) has an optative reading.

(18) *Context: I love snowboarding and I want to go snowboarding as often as possible.*

a. If it snowed tonight, we would go snowboarding tomorrow ...
(but I really don't want it to snow, because I hate shoveling the sidewalks).

b. If **only** it snowed tonight, we would go snowboarding tomorrow ...
(#but I really don't want it to snow, because I hate shoveling the sidewalks).

Rifkin argues that the distinction between independent *if*-optatives and optative conditionals is meaningful. To give a first illustration, optative conditionals can be embedded, (19a), whereas independent *if*-optatives cannot be embedded, (19b). We will discuss this distinction in more detail later.

(19) a. Avi thinks that [if only it would snow, things would be good].

b.* Avi thinks that [if only it would snow].

(Rifkin 2000)

Rifkin uses observations on binding to argue that optative antecedents are truly part of the optative conditional. If an optative conditional is further embedded (as in (19a)), it becomes possible to bind into the optative antecedent, shown by Rifkin in (20a+b); this also appears to hold for German, as I show in (20c), where the optative antecedent is right-peripheral.

(20) a. **No pirate$_i$** doubted [that if only **he$_i$** had had a map, he would have found the treasure].

b. **Each/Every pirate$_i$** convinced me [that if only **he$_i$** had had a map, he could have found the treasure].

(Rifkin 2000)

c. **Kein politisch involvierter Professor**$_7$ würde jemals zugeben, [dass
no politically involved professor would ever admit that
er$_7$ sich eine Villa kaufen würde, wenn **er**$_7$ doch nur reich wäre].
he self a villa buy would if he DOCH only rich were
'No politically involved professor$_7$ would ever say [that he$_7$ would buy a villa, if only he$_7$ were rich].'

We may thus conclude that there are independent *if*-optatives as well as optative conditionals with a (truly embedded) optative antecedent. However, I now briefly review evidence that *if*-optatives can never truly be embedded (see also sections 4.1.4 and 4.1.6); I conjecture that optative conditionals are either paratactic construction or a subtype of conditional clause that I introduce in section 6.2.2 under the label of *minimal sufficiency conditional*. The main focus will be on *if*-optatives (and *that*-optatives/V1-optatives), and not on optative conditionals.

The core question with respect to apparent optative conditionals concerns the nature of the link between an optative antecedent and the conditional that contains it. As observed by Scholz (1991), it is highly marked to truly integrate an optative antecedent into its host clause (which can be shown in German, while it is much more difficult to do so in English). In (21a+b), the *if*-clause acts as the first constituent in the clause for the purposes of V2. I take *if*-clauses in pre-V2 position to be integrated, as opposed to *if*-clauses that adjoin to a complete V2 clause, (22) and (23). As shown in (21b), optative antecedents cannot be truly integrated into their host clause (henceforth: *the unembeddability generalization*), contrasting with non-optative antecedents, (21a), which can be integrated.

(21) a. Wenn ich reich wäre, würde ich dieses Haus kaufen.
if I rich were would I this house buy
'If I were rich, I would buy this house.'

b. ??? Wenn ich **doch** **nur** reich wäre, würde ich dieses Haus kaufen.
if I doch only rich were would I this house buy
'If only I were rich, I would buy this house.'

The examples in (22) show that optative antecedents are well-formed in any of the less integrated adjunct positions, i.e. when left-adjoining or right-adjoining to a complete V2-clause. It is quite plausible that such constructions are formed by means of parataxis of two independent clauses (an *if*-optative and a modally subordinated declarative).

(22) a. Wenn ich **doch nur** reich wäre, dann würde ich dieses Haus kaufen.
if I doch only rich were then would I this house buy
'If only I were rich, then I would buy this house.'

b. Wenn ich **doch** **nur** reich wäre, ich würde dieses Haus kaufen[15].
if I doch only rich were I would this house buy
'If only I were rich, then I would buy this house.'

c. Ich würde dieses Haus kaufen, wenn ich **doch** **nur** reich wäre.
I would this house buy if I doch only rich were
'I would buy this house, if only I were rich.'

Non-optative counterparts to (22) are given in (23).

(23) a. Wenn ich reich wäre, dann würde ich dieses Haus kaufen.
if I rich were then would I this house buy
'If I were rich, I would buy this house.'

b. Wenn ich reich wäre, ich würde dieses Haus kaufen.
if I rich were I would this house buy
'If I were rich, I would buy this house.'

c. Ich würde dieses Haus kaufen, wenn ich reich wäre.
I would this house buy if I rich were
'I would buy this house, if I were rich.'

Counterexamples to the unembeddability generalizations can be found. The examples in (24) are naturally occurring examples, found on google. (Brackets are added to mark the first constituent in pre-V2 position, i.e. the *if*-clause.) They have been verified with native

[15] For discussion of such "V3-conditionals" see König & Van der Auwera (1988), Reis & Wöllstein (2010). Note that a priori there are no reasons why (23b) should differ in any meaningful way from (23a), though the aforementioned authors point out that the (23b) variant is restricted to the subjunctive and to causal (non-epistemic) conditionals, where the antecedent proposition is a *cause* for the consequent proposition (as opposed to the antecedent proposition being *evidence* for the consequent proposition).

speakers and seem to be much more acceptable than other examples, such as (21a), for reasons that are unclear[16].

(24) a. [Wenn ich **doch** **nur** könnte] **würde** ich die Zeit zurück drehen und
if I DOCH only could would I the time back turn and
alles anders machen!
all differently machen
'If only I could, I would turn back time and do everything differently!'

b. [Wenn ich **doch** **nur** könnte], **würde** ich sofort kommen.
if I DOCH only could would I immediately could
'If only I could, I would come immediately.'

c. Ach, [wenn ich **doch** **nur** könnte] **würde** ich sofort bei dir arbeiten.
oh if I DOCH only could would I immediately with you work
'Oh, if only I could, I would immediately start working with you.'

Note that alternative structures are possible to convey the same content, indicating that it is not ellipsis in the *if*-clause that enforces integration; in addition to (24b), all of the variants in (25) are acceptable.

(25) a. [Wenn ich **doch** **nur** könnte], dann **würde** ich sofort kommen.
if I DOCH only could then would I immediately could
'If only I could, I would come immediately.'

b. [Wenn ich **doch** **nur** könnte], ich **würde** sofort kommen.
if I DOCH only could I would immediately could
'If only I could, I would come immediately.'

c. Ich **würde** sofort kommen, [wenn ich **doch** **nur** könnte].
I would immediately could if I DOCH only could
'I would come immediately, if only I could.'

Given the rarity of examples like (24), and their apparent markedness, I will only discuss them in passing. However, it is worth keeping in mind that a strict version of the

[16] The elliptical nature of the antecedents may play a role, but as of now it is unclear why this would be the case and what the other decisive factors are.

unembeddability generalization of Scholz (1991) stands challenged in light of such examples. It is plausible that we are dealing with an interaction of different structural and non-structural factors that lead to the general degradedness of integrated optative antecedents[17]. As for the binding effects in (20), such constructions can plausibly be treated as some type of *minimal sufficiency conditional*, a concept introduced in section 6.2.2. Henceforth, the focus will be on *if*-optatives (as well as *that*-optatives/V1-optatives) and not on optative conditionals.

### 2.1.3 Cautionary Remarks on *Optative Mood* and *Optative Clause Type*

To conclude section 2.1, I wish to distance myself from the notions of *optative sentence type / optative clause type* on the one hand (though I will briefly come back to this notion in section 3), and *optative mood* on the other hand. As regards the former, I do not assume a theory or framework where 'clause types' or 'sentence types' are primitives (*pace* Scholz 1991, Brandt et al. 1992, Rosengren 1992, 1993; see also Altmann 1987). Therefore, this notion will not be relevant for my investigations. As for (grammatical) *optative mood*, this is a descriptive term for specialized morphology, commonly associated with wishes; we find optative mood in languages like Albanian (Camaj 1984), Romanian (Nandris 1961) and Ancient Greek (Hansen & Quinn 1987). The following examples show clearly that there is no one-to-one correspondence between optative mood and the optativity that I am concerned with.

As a first illustration, consider Albanian. Here, *if*-optatives seem to select subjunctive mood, (26a+b), whereas *that*-optatives select optative mood, (26c).

(26) a. **Sikur** Beni vetëm **t**-a kishte dëgjuar mamanë! *Albanian*
**as.if** Ben only **subj**-3sg.cl had listened.to mother
'If only Ben had listened to his mother!' *(past perfect + subjunctive mood)*

b. **Sikur** vetëm **të** mos vono-het Beni nesër!
**as.if** only **subj** not get.late Ben tomorrow
'If only Ben doesn't oversleep tomorrow!' *(present tense + subjunctive mood)*

[17] Alternatively, (24) may involve a rare type of parataxis, involving matrix clauses with V1 order; see Axel & Wöllstein (2008) and Reis & Wöllstein (2010) on the idea that there are true V1 clauses in German.

c. **Që** vetëm mos u vono-**ftë** Beni nesër!
**that** only not n.act get.late-**opt.3sg** Ben tomorrow
'That Ben doesn't oversleep tomorrow!' *(present tense + optative mood)*

Romanian has a different pattern, which loosely appears to be the opposite of Albanian. Here, *if*-optatives select optative mood, as shown in (27a+b), whereas complementizer-less optatives select subjunctive mood, shown in (27c). Given that Romanian does not seem to have *that*-optatives, we might analyze (27c) as the Romanian version of a *that*-optative[18]; with this premise, Romanian is exactly the mirror image of Albanian.

(27) a. Măcar **dacă ar** fi ascultat-o! *Romanian*
MACAR[19] **if opt** be listened-her
'If only he had listened to her!'

b. Măcar **de-ar** fi ascultat-o!
MACAR **if-opt** be listened-her
'If only he had listened to her!'

c. Ah, **să** fi ascultat John de Mary!
oh **subj** be listened John of Mary
'Oh, that John had listened to Mary!'

Finally, according to Palmer's (2001) glosses, Classical Greek exhibits an optative / indicative split within the same construction, namely in *if*-optatives introduced by εἰ γάρ (eí gár) 'for if, if only'. This is illustrated in (28a+b) versus (28c). Contrasting with Romanian, the complementizer-less optative in (28d) must be in the optative mood.

(28) a. **eí** gár tosaúte:n dúnamin eíkh-on[20] *Ancient Greek*[21]
**if** for such strength have-1sg.**impf.indic**
'If only I had such strength!' (Eur. *Alc.* 1072)

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[18] As a matter of fact, Ammann & van der Auwera (2004) treat *să* as a modal complementizer meaning 'that'.

[19] Romanian *măcar* can be translated as 'at least' or as 'even' (Andreea Nicolae, p.c.); as will be discussed in section 2.2, this is commonly assumed to be a cognate of the optative particle *makari* in Greek.

[20] Cf. νικ-ω 'I conquer', ε-νικ-ων 'conquer (1sg, impf., indicative, active)', Hansen & Quinn (1987:652)

[21] Palmer (2001) argues that the "optative mood" in Classical Greek is nothing more than a "past subjunctive", as it is in complementary distribution with "present subjunctive".

b. **eí** gár m' hupó gé:n … hé:k-en[22]
**if** for me below earth send-3sg.**aor.indic**
'If only he had sent me under the earth.' (Aesch. *P.V.* 152)

c. **eí** gár gen-íme:n[23] téknon, antí soú nekrós
**if** for become-1sg.**aor.opt** child instead.of you corpse
'If only I were a corpse, my child, instead of you!' (Eur. *Hipp.* 1410)

d. ó: paí gén-oio[24] patrós eutukhésteros
O child become-2sg.**aor.opt** of.father luckier
'Oh child, mayst thou be luckier than thy father.' (Soph. Aj. 550)

(Palmer 2001:208-217)

We can thus conclude that cross-linguistically, optative mood does not consistently correlate with any obvious feature of optative clauses. I will however come back to the idea that (semantic, rather than grammatical) *mood* plays a role in optative constructions, in section 5.

### 2.1.4 Interim Summary and Terminological Clarifications

To summarize the main aspects of this section, I have introduced the concepts of *if*-optative and *that*-optative (in 2.1.1) and clarified the definitions that I will be presupposing. In 2.1.2, I have reviewed evidence that we should differentiate between two types of optative constructions that involve *if*-clauses: independent *if*-optatives and optative conditionals, of which I will focus on the former. I have shown that these do not exhibit the same behavior in all regards and should thus be distinguished. Finally, in section 2.1.3 I discussed evidence that there is no one-to-one mapping between optative utterances and so-called optative mood.

Having shown the lay of the land, it is worth defining a few more terms that I will use in this dissertation. First, *optative clause* is a descriptive term for the sentence (i.e. the grammatical construction) that is used in an optative utterance. Second, *optative speech*

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[22] Cf. *λυ-ω* 'I loosen', *ε-λυσ-ε(ν)* 'loosen (3sg, aorist, indicative, active)', Hansen & Quinn (1987:658)
[23] Cf. *βαλ-λω* 'I throw', *βαλ-ιμην* 'throw (1sg, aorist, optative, middle)', Hansen & Quinn (1987:660)
[24] Cf. *βαλ-λω* 'I throw', *βαλ-οιο* 'throw (2sg, aorist, optative, middle)', Hansen & Quinn (1987:660)

*act* is a descriptive term for the perceived exclamation or 'expression of a wish' that is typical for the use of an optative utterance. Finally, *optative* and *optativity* are cover terms that subsume optative utterances, optative clauses and optative speech acts whenever vagueness is in order. I will also be speaking of *optative readings* versus *non-optative readings* if an utterance is ambiguous between an optative utterance and something else that doesn't express a wish.

## 2.2 Dispelling the *Idiom Hypothesis*

Looking at English, an intuition that native speakers report is that *if only* utterances are idiomatic / formulaic. This can be made precise in the shape of what I call the *idiom hypothesis*. The *idiom hypothesis* assumes that *if only* is an idiomatic expression encoding a wish (cf. also Quirk et al. 1972, where *if only* utterances are considered formulaic). As an alternative, I formulate the *optative hypothesis* as follows: Optatives are specialized utterances that have certain prototypical properties, e.g. the presence of an optative particle. This section reviews three reasons to reject the idiom hypothesis in favor of the optative hypothesis; by doing so, it also reviews some of the basic findings on optatives. Two of the reasons to reject the idiom hypothesis stem from Rifkin (2000); the third has not been formulated in this way before.

Rifkin's first argument to dispel the idiom hypothesis can be summarized as follows. If the combination of *if* and *only* was idiomatic, we might expect the two elements to cluster in some sense or other, i.e. it would be plausible that they are obligatorily adjacent. As Rifkin shows, this is not the case, cf. (29). The particle *only* can occur in different parts of the clause (roughly: above negation) without affecting the optative interpretation. In (29b), *only* surfaces below the subject; in (29c), it occurs between the past tense auxiliary *had* and the negation. As (29d) shows, it cannot occur below negation, which indicates that its placement is restricted by the syntax or semantics of optatives (possibly the generalization is that *only* has to take wide sentential scope).

(29) a. If **only** he didn't have a gun! (≈ I wish he didn't have a gun.)
b. If he **only** didn't have a gun! (≈ I wish he didn't have a gun.)

c. If he had **only** not had a gun! (≈ I wish he hadn't had a gun.)

d.# If he hadn't **only** had a gun! *(feels incomplete – no optative reading)*

(from Rifkin 2000)

Rifkin's second argument against the idiom hypothesis is that optative readings arise in a variety of languages if we place counterparts of the particle *only* into a conditional antecedent. His examples are given in (30). (See chapter 6.2 for a wider range of data.)

(30)a. **Wenn** Hans **nur** reich wäre! *German*
if Hans only rich were
'If only Hans were rich!'

b. **Se** **solo/soltanto** Gianni fosse ricco! *Italian*
if only Gianni be.subj rich
'If only Gianni were rich!'

c. **Jesli** by ja **tol'ko** byl bogatym! *Russian*
if I only be.past rich.inst
'If only I were rich!'

d. **ilu/lu** **rak** hayiti ashir! *Hebrew*
if only be.past.1sg rich
'If only I were rich!'

e. **Jos** **vain** olisin rikas *Finnish*
if only be.cond.1sg rich
'If only I were rich!'

f. John-i puca-i-ki-**man** ha-ess-te-**ramyun** *Korean*
John-Nom rich.person-be-nmlz-only do-Past-Past-if
'If only I were rich!'

(Rifkin 2000)

Rifkin draws the following conclusion: Given the diversity of languages in which a combination of *if* and *only* gives rise to optativity, this cannot be a coincidence, i.e. these expressions cannot be idiomatic or formulaic. A possible concern that needs to be raised here is that optative markers seem to be very prone to becoming loan words. As we will see, many languages in Europe have a cognate of the Greek optative particle *makari*, many languages in South Asia and South-West Asia have a cognate of the optative

particle *kash*, and Spanish *ojalá* as well as Portuguese *oxalá* seem to be loan words from Arabic. Without an investigation of when the constructions in (30) emerged historically, the fact that optative constructions are often loaned into other languages weakens the force of Rifkin's argument.

Rifkin's argument that *only* makes a compositional, non-idiomatic contribution to optatives is however corroborated by the following fact, unnoticed by Rifkin (but noticed in Quirk et al. 1985). In English, the particle *just* can also license optativity, as illustrated in (31).

(31) a. Oh, if he **just** knew how much we miss him!
(= I wish he knew how much we miss him!)

b. Oh, if **just** once I could be a guest in such a beautiful house!
(= I wish I could once be a guest in such a beautiful house!)

While (31a+b) have been constructed and checked with native speakers, written examples can be found in a corpus search, as given in (32).

(32) Oh, if **just** once in my whole life I could have even so much as an atticful of home! Oh, please--please--please, Mr. Barton!
(Eleanor Hallowell Abbott. 1914. *Little Eve Edgarton*. NY: The Century Co.)[25]

It would be rash to conclude that all elements that roughly mean *only* can license optativity, as restrictions do apply. The particle *merely* does not seem to license optativity in English, (33), putting it in clear opposition to *only* and *just*.

(33) # Oh, if he **merely** knew how much we miss him! (≠ I wish he knew ...)

I now continue my discussion of the idiom hypothesis, as outlined above, and I will come back to an in-depth discussion of *only* in chapter 6.2.

As a preamble to the third argument against the idiom hypothesis, a critical evaluation of Rifkin's observations is in place. While Rifkin successfully dispels the idiom

[25] http://www.gutenberg.org/files/15660/15660-8.txt

hypothesis, he implicitly exhibits a bias for a hypothesis that we may call the *only-optative hypothesis* and state as follows: Optatives (or at least *if*-optatives) are utterances that express a wish by means of placing the particle *only* into a conditional antecedent. This is more specific than the optative hypothesis that I proposed above. The following data argue not only against the idiom hypothesis but also against the *only*-optative hypothesis. In a nutshell, it can be observed that cross-linguistically *only* is not the only particle that can be used to generate an optative reading. Roughly, I show that the particles that are prototypical for optative clauses are taken from a semantic field that subsumes *only*, *at least* and *but/though.*

Focusing on *if*-optatives, Scholz (1991) shows that *nur* 'only' is not the only optative particle in German. The particle *doch* (roughly: 'but/though') can also act as an optative particle, cf. (34b).

(34) a. Wenn Otto **nur** auf seine Mutter gehört hätte! *German*
if Otto only to his mother listened had
'If only Otto had listened to his mother!'

b. Wenn Otto **doch** auf seine Mutter gehört hätte!
if Otto DOCH to his mother listened had
'If only Otto had listened to his mother!'

Dutch behaves like German in allowing for several different optative particles, including *maar* 'only/but', *nou* 'now' and the cluster *toch eens* 'but once'[26], illustrated in (35).

(35) a. Als Jan **maar** naar Marie had geluisterd! *Dutch*
if Jan only/but to Marie had listened
'If only John had listened to Mary!'

b. Als Jan **nou** naar Marie had geluisterd!
if Jan now to Marie had listened
'If **only** John had listened to Mary!'

c. Als Jan **toch** **eens** naar Marie had geluisterd!
if Jan TOCH once to Marie had listened
'If **only** John had listened to Mary!'

[26] Note that neither *toch* nor *eens* seems to be able to license an optative reading on its own.

Even more strikingly, 19th century English patterns very much like German and Dutch in allowing *if*-optatives with the optative particle *but*, shown in (36). Particularly interesting is (36a), which contains an *if*-optative with *but*, followed by an *if*-optative with *only*. This shows that *only* did not replace *but* (as one might conjecture, also given the exclusive reading of *but* which is equivalent to *only*); rather did they co-exist, as is currently the case in German (*nur* 'only' / *doch* 'but/though') and Dutch (*maar* 'only' / *toch eens* 'but for once').

(36) a. "Oh, **if** Papa would **but** give you to me!" exclaimed Miss Inches one day. "**If only** I could have you for my own, what a delight it would be!"
(Susan Coolidge. 1875/1893. Nine Little Goslings. Boston: Roberts Brothers.)[27]

b. Oh, **if** I could **but** once get to yonder house, and **but** look upon whoever the happy being is that lives there!
(Herman Melville. 1856. The Piazza Tales. New York: Dix & Edwards.)[28]

c. Oh! **if** Frederick had **but** been a clergyman, instead of going into the navy, and being lost to us all! I wish I knew all about it.
(Elizabeth Cleghorn Gaskell. 1854-1855. North and South. Serially in *Household Words*.)[29]

d. Oh, **if** he could **but** get down to that stream!
(Charles Kingsley. 1862-1863. The Water-Babies. Serial in *Macmillan's Magazine*.)[30]

e. Nay, **if** he could **but** once see the meanness of this detestable vice; would he **but** once reflect that he is one of the most scandalous as well as pernicious lyars; sure he must despise himself to so intolerable a degree, that it would be impossible for him to continue a moment in such a course.
(Henry Fielding. 1742. Joseph Andrews Vol.2. Edited by George Saintsbury.)[31]

We can thus safely reject the idiom hypothesis as well as the *only*-optative hypothesis, and assume the optative hypothesis, repeated from above: Optatives are specialized

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[27] http://www.gutenberg.org/files/27678/27678-h/27678-h.htm
[28] http://www.gutenberg.org/files/15859/15859-h/15859-h.htm
[29] http://www.gutenberg.org/dirs/etext03/ecgns10.txt
[30] http://www.gutenberg.org/dirs/etext97/wtrbs10h.htm
[31] http://www.gutenberg.org/cache/epub/9609/pg9609.txt

utterances that have certain prototypical[32] properties, e.g. the presence of an optative particle.

We can also elaborate on the set of particles that can serve as optative particles, to delimit the range of data that an explanatory theory should cover. As we have seen, *only* and *but* (or possibly *though*) have a meaning that can be employed by a language to mark optativity. A third class of optative particles subsumes elements that mean *at least*. Scholz (1991) states that an utterance like (37a) should be analyzed as an optative. The intuition shared by native speakers of German is that (37a) is clearly an independent utterance that expresses a wish[33]. (37a) differs from (37b) in that (37a) seems to express a more modest wish, as follows. Example (37b) with *nur* 'only' conveys that if Otto had listened to his mother, things would be significantly better. In contrast, example (37a) with *wenigstens* 'at least' conveys that if Otto had listened to his mother, things may strictly speaking not be much better, but things would at least be somewhat better / less bad than they are.

(37) a. Wenn Otto **wenigstens** auf seine Mutter gehört hätte! *German*
if Otto at.least to his mother listened had
'If Otto had at least listened to his mother!'

b. Wenn Otto **nur** auf seine Mutter gehört hätte!
if Otto only to his mother listened had
'If only Otto had listened to his mother!'

An example that emphasizes the difference between *nur* 'only' and *wenigstens* 'at least' is given in (38). (38a) is an *only*-optative that expresses a 'real wish' (i.e. if he hadn't gone to the demonstration, I would be satisfied); in contrast, the *at least*-optative in (38b) seems to express a 'modest wish' (i.e. if he had gone, but not provoked the policemen, I

[32] It is controversial whether optative particles are a necessary component of optative clauses. I will address this matter and follow Rosengren (1993) in assuming that these particles are prototypical rather than necessary.

[33] The translations of (37a) into English and Dutch are not accepted by native speakers of these languages, but we will see that many languages other than German do allow for *at least* optatives.

wouldn't be satisfied, but I would be more satisfied than I am)[34]; this distinction is captured by the (informal) paraphrase in (38c).

(38) *Context: My son wanted to participate in a demonstration against the current government. I told him not to go, as the last demonstrations were always accompanied by a lot of violence. He decided to go anyway, which would have been bad enough, as he got into a fight and got severely bruised. Furthermore, he provoked the policemen and got himself arrested.*

a. Ach, wenn er **nur** nicht auf diese Demo gegangen wäre!
oh if he only not to this demonstration gone were
'Oh, if only he hadn't gone to this demonstration!'

b. Oder wenn er **wenigstens** nicht die Polizisten provoziert hätte!
or if he at.least not the policemen provoked had
'Or if at least he hadn't provoked the policemen!'

c. *Paraphrase:*

Things **would be good** if he hadn't gone to this demonstration, but given that he did go, things **would be less bad** if he hadn't provoked the policemen.

This special property of *at least*-optatives should be kept in mind when looking for such constructions in different languages; clearly, *at least*-optatives require more context than *only*-optatives and may thus be less natural in an out-of-the-blue context.

Interestingly, there are languages that can only form optatives with 'at least' and not with 'only'; these languages include Modern Greek, European Spanish, Brazilian Portuguese and Catalan, cf. (39)-(42). Notably, these languages all have a specialized optative marker as well, such as the Modern Greek particle *makari*, the European Spanish particle *ojalá* and the Catalan phrase *tant de bo* 'as much of good'; Brazilian Portuguese does not seem to use such a specialized marker (Rafael Nonato, p.c.), but European Portuguese employs *oxalá*. The fact that languages with a specialized optative marker tend to form *if*-optatives with 'at least' rather than with 'only' might be more than a

[34] Note that reversing the order of (38a) and (38b) seems to lead to semantic and/or pragmatic ill-formedness. This may be due to different factors. On the one hand, *wenigstens* 'at least' seems to require a salient proposition that is better than what is wished for, and thus requires more context than *nur* 'only', which does not require such a salient alternative. On the other hand, it may be more natural to downgrade from a true wish to a compromise than to upgrade from a compromise to a true wish.

coincidence. In chapter 6.2, I will however derive the non-existence of (39a), (40a), (41a) and (42a) from an independent property of these languages: The non-existence of truth-conditionally vacuous *only* (which I will call ONLY$_2$, in the spirit of Guerzoni 2003).

(39) a. ?* An **mono** o John iche akusi tin Mary! *Modern Greek*
if only the John.nom had.3sg listened the Mary.acc
?* 'If **only** John had listened to Mary!'

b. An **toulachiston** o John iche akusi tin Mary!
if at.least the John.nom had.3sg listened the Mary.acc
'If John had **at least** listened to Mary!'

(40) a.* Si **solo** Juan hubiera escuchado a María! *Europ. Span.*
if only Juan had.sub.past listened to Mary
* 'If **only** John had listened to Mary!'

b. Si Juan hubiera **al menos** escuchado a María!
if Juan had.sub.past at least listened to Mary
'If John had **at least** listened to Mary!'

(41) a.* Se **só / apenas** o João tivesse ouvido a Maria! *Braz. Port.*
if only only the John had listened.to the Mary
* 'If **only** John had listened to Mary!'

b. Se **ao menos** o João tivesse ouvido a Maria!
if at.the least the John had listened.to the Mary
'If John had **at least** listened to Mary!'

(42) a.* Si (en Joan) **només / solament** hagués escoltat (a) la Maria! *Catalan*
if the John only only had.subj listened to the Mary
* 'If **only** John had listened to Mary!'

b. Si (#en Joan) **almenys** hagués escoltat (a) la Maria!
if the John at.least had.subjunctive listened to the Mary
'If he / #John had **at least** listened to Mary!'

In sum, we have seen that the meanings of 'only', 'but' and 'at least' appear to be linked to optativity, which we need to explain. I propose an analysis in chapter 6; for now, I wish to provide another relevant piece of empirical evidence from diachrony.

Language change provides evidence that the link between 'only', 'but' and 'at least' on the one hand and optativity on the other hand is not coincidental. One of the most pervasive loan words in Southern European languages goes back to Middle Greek *makárie* 'happy, favorable', which is the vocative of *makários* (Diez 1887, as discussed and evaluated by Buchi 2008). While *makari* is still a productive optative particle in Modern Greek, shown in (43a), cognates exist in Italian, Romanian, Serbian, Slovenian, Old Spanish and Occitan. As shown in (43b+c), Romanian and Serbian still employ *măcar / makar* as optative particles. However, strikingly, Romanian *măcar* also has the meaning 'at least, even' and Serbian *makar* also has the meaning 'at least', cf. chapter 6.3. These meanings must have emerged after *makárie* 'happy, favorable' was loaned into these languages, suggesting a bi-directional link between optativity and 'at least'.

(43) a. **Makari** o John na akusi tin Mary! *Modern Greek*
MAKARI the John subj listened the Mary.acc
'If only John had listened to Mary!'

b. **Măcar** dacă ar fi ascultat-o! *Romanian*
MACAR if opt be listened-her
'If only he had listened to her!'

c. Da je Jovan **makar** poslušao Mariju! *Serbian*
that be.3sg John MAKAR listened Mary.acc
'If only John had listened to Mary!'

Evidence that the Romanian and Serbian developments are not historical accidents, but rather systematic, stems from Old Spanish *maguer*. After *ojalá* (a loan from Arabic, cf. Montero Cartelle 1992) replaced *maguer* in its function of optative particle, *maguer* acquired a new meaning as a concessive clausal complementizer *maguer que* '(al)though' (Rudolph 1996, Buchi 2008). This provides evidence for a bi-directional relationship between optativity and the concessive meaning expressed by 'but/though', analogous to the relationship between optativity and 'at least'[35].

[35] In section 6.3, we also see evidence from Russian *xotja* 'at least, although' and Polish *chociaż* 'at least, although' that there is a connection between the meaning of *at least* and the meaning of *although, though.*

To summarize, the following types of particles can serve as optative particles, apparently turning a conditional antecedent into an *if*-optative: Particles that mean 'only', particles that mean 'at least', and particles that mean 'but/though'. On the other side of the coin, designated optative markers like Middle Greek *makárie* 'happy, favorable' can be diachronically reanalyzed as particles that mean 'at least' or 'but/though', and possibly also as markers of 'only' (although we do not have evidence for the last). This indicates a strong bi-directional link between the expression of a wish (i.e. desirability) and the semantic field delimited by *but*, *though*, *only* and *at least*. The semantic part of this dissertation attempts to give a formal analysis of this link.

## 2.3 The Next of Kin – Introducing Polar Exclamatives

At this point, I introduce a different type of construction, which is relevant for the purposes of this dissertation in that it qualifies as the construction that is most similar to optatives (see also Scholz 1991), namely *polar exclamatives*. *Polar exclamatives* are utterances that express surprise, shock or amazement at a fact (not at the degree to which something holds) without a lexical item that means *surprise*, *shock* or *amazement*. While English only marginally allows for polar exclamatives and typically requires an overt modal *should* or *could*, as in (44), many Germanic languages employ such constructions quite freely, as illustrated in (45). (I will call constructions like (45) *dass*-polar exclamatives when focusing in German, or, more generally, *that*-polar exclamatives.)

(44) a. That he should have left without asking me! *English*

b. That you could ever want to marry such a man!
(Quirk et al. 1985:841)

(45) a. Att du hann till mötet! *Swedish*
that you reached to meeting.DEF
*lit.* 'That you reached the meeting!'
≈ '(What a surprise) that you reached the meeting!'
(Delsing 2010:32)

b. Dass die dort gewohnt haben! *German*
that they there lived have
*lit.* 'That they lived there!'

≈It amazes me [that they lived there]. (I wouldn't have expected that.)

(Rosengren 1992:278)

c. Jøss, at du greide å huske det! *Norwegian*
Jesus that you managed to remember that
*lit.* 'Jesus, that you managed to remember that!'

≈It amazes me [that you managed to remember it].

Polar exclamatives share the following properties with optatives. First, they can take the shape of unembedded *that*-clauses (and V1-clauses, as we see below). Second, they are typically used to exclaim. Third, they intuitively involve a comparison between the expressed proposition and its polar opposite: In an optative, the denoted proposition is what I wish for, whereas its negation is what is the case; in a polar exclamative, the denoted proposition is what is surprisingly the case, whereas its negation is what I would have expected. In many regards, these similarities allow us to draw comparisons and fine-tune our analysis. Moreover, I propose in this dissertation that these similarities are not coincidental but reflect a core semantics that both types of utterances share.

Discussing optatives from the perspective of polar exclamatives also benefits from the fact that there is a large amount of literature on exclamatives (though mainly focusing on degree exclamatives), including McCawley (1973), Grimshaw (1979), Obenauer (1994), d'Avis (2002), Zanuttini & Portner (2003), Ono (2006), Castroviejo Miró (2006), Rett (2008), the papers in Villalba (2008), Abels & Vangsnes (2010), Delsing (2010), Jónsson (2010), Yamato (2010), Brandner (2010), Sæbø (2010), Abels (2010). Example (46) applies a diagnostic from Zanuttini & Portner (2003) to a German polar exclamative, verifying its status as an exclamative. As Zanuttini & Portner (2003:47) observe for degree exclamatives, the conveyed remarkability of the denoted proposition cannot be canceled in an exclamative. This is why the continuation in (46a) is ill-formed, contrasting with (46b) – the well-formedness of (46b) follows, as a canonical root declarative does not entail or imply remarkability.

(46) a. Dass der wieder verschlafen hat! – # was natürlich zu erwarten war.
that he again overslept has which naturally to be.expected was
*lit.* 'That he overslept again!' – #'Which was, of course, to be expected.'

b. Der hat wieder verschlafen! – was natürlich zu erwarten war.
he has again overslept which naturally to be.expected was
'He overslept again!' – 'Which was, of course, to be expected.'

A further parallel between optatives and polar exclamatives that is worth considering concerns the possibility of V1-polar exclamatives (e.g. Oppenrieder 1987, 1989, and Batliner & Oppenrieder 1989), illustrated in (47). We note that V1-polar exclamatives differ from *dass*-polar exclamatives in that they require certain particles (such as *doch* or *glatt* 'outrightly'). This does not challenge their existence though, given that there are optatives that require certain particles as well (e.g. *only*).

(47) a. Kennt der **doch** **glatt** den Kaiser von China!
knows he doch outrightly the emperor of China
'[I'm shocked that] he knows the emperor of China!'

b. Dieser Bengel! Hat der **doch** (tatsächlich / wirklich / glatt)
this brat has he doch indeed really outrightly
wieder seine Zähne nicht mit Blendax-Antibelag geputzt!
again his teeth not with Blendax-anti-plaque cleaned
'This brat! [It's shocking that] he didn't clean his teeth with Blendax-anti-plaque again!'

c. Hätte der dem **doch** tatsächlich das Buch gegeben!
had he him doch indeed the book given
'[I'm shocked that] he would have indeed given him the book!'

d. Haben Sie **doch** (tatsächlich / wirklich) daran gedacht!
have you doch indeed really of.it thought
'[I'm amazed/surprised that] you really remembered it!'

(Scholz 1991:132-133, attributing (47a) to W. Oppenrieder, (47c) to N. Fries)

As Scholz shows, minimal pairs of *dass*-polar exclamatives and V1-polar exclamatives can be constructed, illustrated in (48) and (49). Crucially, (48a) and (48b) seem to be

equivalent in their meaning (though we will see that there are some distributional differences); similarly, (49a) and (49b) seem equivalent.

(48) a. *indicative polar exclamatives*

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Dass** | Sie | (doch | / tatsächlich / | wirklich) | daran | gedacht | **haben**! |
| that | you | doch | indeed | really | of.it | thought | have |

'[It's remarkable] that you really remembered it!'

b. *indicative polar exclamatives*

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Haben** | Sie | doch | (tatsächlich / | wirklich) | daran | gedacht | $\mathbf{t_{haben}}$! |
| have | you | doch | indeed | really | of.it | thought | |

'[It's remarkable] that you really thought of it!'

(based on Scholz 1991:132-133, attributing (48a) to W. Oppenrieder)

Example (49) illustrates that exclamatives can be in the subjunctive mood, without losing their factivity.

(49) a. *subjunctive (yet factive) polar exclamatives*

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Dass** | die | dem | doch | tatsächlich | das | Buch | gegeben | **hätte**! |
| that | she | him | doch | indeed | the | book | given | had |

'[It's remarkable] that she would have indeed given him the book!'

b. *subjunctive (yet factive) polar exclamatives*

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Hätte** | die | dem | doch | tatsächlich | das | Buch | gegeben | $\mathbf{t_{hätte}}$! |
| had | she | him | doch | indeed | the | book | given | |

'[It's remarkable] that she would have indeed given him the book!'

(based on Scholz 1991:132-133)

If we add V1-degree exclamatives (cf. Rosengren 1992, Brandner 2010), we can establish the following paradigm of verb-initial exclamations in German. (I only marginally address degree exclamatives in this dissertation). One of the goals of this dissertation is to account for the distribution of V-to-C movement and different complementizers in exclamations, see chapter 5.

(50) a. **Hätte** er doch nur getanzt! *V1 optative*
had he doch only danced
'Had he only danced!' ('I wish he had danced!')

b. **Hat** der doch glatt getanzt! *V1 polar exclamative*
has he doch outrightly danced
'[I'm shocked] that he danced!'

c. **Hat** der vielleicht getanzt! *V1 degree exclamative*
has he maybe danced
'Boy, did he dance!' ('I'm amazed at the extent of his dancing!')

A brief in-depth discussion of the status of V1-polar exclamatives is in place, as the existence of such clauses is highly controversial. While Scholz (1991) verges towards treating them as true exclamatives, authors as recent as Brandner (2010) assume that V1-polar exclamatives do not exist. In what follows, I address concerns that V1-polar exclamatives may be V1-questions or V2-declaratives with SpecCP deletion.

First of all, we can establish that V1-polar exclamatives in German are not pragmatically reinterpreted yes/no-questions (see also McCawley 1973, Goldberg & Del Giudice 2005 for a similar issue with respect to English V1-degree exclamatives). All of the examples in (47) contain *doch*, which can, but need not be stressed. Crucially, the distribution of unstressed *doch* is severely restricted in questions. Unstressed *doch* can only occur in certain types of rhetorical (speaker-directed) *wh*-questions, as in (51a), and is impossible in any type of *yes/no*-question, (51b). The impossibility of *doch* in *yes/no*-questions indicates that the utterances that I introduced as V1-polar exclamatives above are not pragmatically reinterpreted questions[36].

(51) a. Wie bemerkt Goethe **doch** so treffend?
how remarked Goethe doch so fittingly
'What did Goethe say again that fits so well?'
(Thurmair 1989:117)

b. Hat Goethe das (**denn** / * **doch**) gesagt?
has Goethe that denn doch said
'Did Goethe say so?'

[36] V1-polar exclamatives also marginally allow for the unstressed discourse particle *ja* (particularly in the string *ja DOCH noch* 'after all'), which is impossible in all types of questions, including *wh*-questions.

A second challenge to establishing a class of V1-polar exclamatives stems from their distribution. It is commonly taken to be an argument against the existence of V1-polar exclamatives that the relevant examples are more restricted in their distribution than *dass*-polar exclamatives. The core example that is often cited is given in (52). The observation is that presumably exclamative V1-clauses can be integrated into a text, as in (52a), whereas *dass*-polar exclamatives cannot be, (52b).

(52) Ich fahre gerade in Eurasburg den Berg hinunter ...
I cycle just in Eurasburg the hill down
'I'm just cycling downhill in Eurasburg ...'

a. ... **Springt** mir doch glatt eine Katze ins Vorderrad.
jumps me doch outright a cat into.the front.wheel
'[Shockingly] a cat jumps into my front wheel.'

b.# ... **Daß** mir eine Katze ins Vorderrad **springt!**
that me a cat into.the front.wheel jumps
'[It's shocking] that a cat jumps into my front wheel.'

(Oppenrieder 1989:217, fn.42, Önnerfors 1997b:180,182)

Interesting as this contrast may be, it does not show that such V1-clauses are not exclamatives. In sharp contrast to such a conclusion, V1-degree exclamatives, (53a), and *wh*-degree exclamatives, (53b), are both perfectly well-formed in such a context.

(53) Ich fahre gerade in Eurasburg den Berg hinunter ...
I cycle just in Eurasburg the hill down
'I'm just cycling downhill in Eurasburg ...'

a. ... Ist das vielleicht eine steile Fahrt!
is that maybe a steep ride
'How steep a ride that is!'

b. ... Wie steil das ist!
how steep that is
'How steep that is!'

The possibility of (53a+b) falsifies an argument from (52a) against treating V1-polar exclamatives as exclamatives. (53) indicates that, in fact, (52b) is the puzzling case. For

some reason (which is beyond the scope of this project), *dass*-polar exclamatives resist being integrated into a discourse in a sense in which other exclamatives do not.

We can now turn to the strongest challenge for the existence of V1-polar exclamatives: The possibility that V1-polar exclamatives are simply declarative V2 clauses that contain an elided element in SpecCP position, a possibility pointed out by Scholz (1991), based on Oppenrieder (1989). (See also Altmann 1987.) The main candidate would be an elided semi-vacuous situational or temporal pronoun[37]. This is illustrated in (54a+b), adapted from (47a+d).

(54) a. ⟨~~Da~~⟩ kennt der doch glatt den Kaiser von China!
there knows he doch outrightly the emperor of China
'[I'm shocked that] he knows the emperor of China!'

b. ⟨~~Jetzt~~⟩ haben Sie doch (tatsächlich / wirklich) daran gedacht!
now have you doch indeed really of.it thought
'[I'm amazed/surprised that] you really remembered it!'

It proves difficult to show that this is not the right analysis, but we can consider different aspects of such V1-clauses, to see which view is supported by the facts. The core question to review is: Can we attest links between presumable V1-polar exclamatives and other types of established V1-clauses that may involve SpecCP deletion? Declarative V1-clauses in German (and other Germanic languages) include constructions exhibiting *narrative inversion* (cf. Sigurdsson 1990), (55a), and constructions involving *topic drop* (cf. Cardinaletti 1990, Mörnsjö 2001), (55b).

(55) a. Kommt da plötzlich ein Kerl herein. *German narrative inversion*
comes then suddenly a guy inside
'Suddenly, a guy enters.'

(Önnerfors 1997a:299, from Behagel 1932:38)

b. Kommt der Hans? – Kenn ich nicht. *German topic drop*
comes the Hans know I not
'Is Hans coming? – I don't know him.'

---

[37] Or an expletive element *es* 'it', as advocated by Altmann (1987) for V1-clauses of the 'narrative inversion' type. I take this to be rather implausible in the examples under discussion.

In both cases, it is conceivable that an element in SpecCP has been elided (though Önnerfors 1997a advocates a view where narrative inversion clauses are *true V1 clauses*[38]), cf. Holmberg (2010).

(56) a. ⟨~~**Dann**~~⟩ kommt da plötzlich ein Kerl herein.
then comes there suddenly a guy inside
'Suddenly, a guy enters.'

b. Kommt **der Hans**? – ⟨~~**Den**~~⟩ kenn ich nicht.
comes the Hans him know I not
'Is Hans coming? – I don't know him.'

So, the first question to ask is whether purported V1-polar exclamatives fall into one of these two categories, i.e. whether they are instances of narrative inversion or topic drop. If they cannot be argued to fall into either category, this weakens a view that assumes SpecCP-deletion in German V1-polar exclamatives, given that empty SpecCP positions are restricted in German, a verb second language.

We can first argue against a *topic drop* analysis of V1-polar exclamatives. First, as illustrated in (57), topic drop is licensed in the response to a question.

(57) a. Kommt **der Hans**? – (**Den**) kenn ich nicht.
comes the Hans him know I not
'Is Hans coming? – I don't know him.'

b. Wie findest du **das Flex**? – (**Da**) bin ich noch nie gewesen.
how find you the Flex there am I yet never been
'How do you like Flex (a club)? – I've never been there.'

c. Was passiert **dann**? – (**Dann**) schlägt der Otto dem Hans ins Gesicht.
what happens then then hits the Otto the Hans in.the face
'And what happens then? – Then Otto punches Hans into his face.'

[38] See also Axel & Wöllstein (2008) and Reis & Wöllstein (2010) for a discussion of V1-clauses in German.

Example (58a) illustrates a potential V1-polar exclamative, accompanied by example (58b), which may be the (elliptical) V2-declarative that underlies the surface form in (58a).

(58) *I enter my dorm room to find my hamster cage empty. I remember my room mate threatening to sell my hamster if I ever play loud music again late at night.*

a. Hat der jetzt doch tatsächlich meinen Hamster verkauft!!
has he now doch indeed my hamster sold
'[I'm shocked that] he sold my hamster for real!'

b. **(Da)** hat der jetzt doch tatsächlich meinen Hamster verkauft!!
there has he now doch indeed my hamster sold
'[I'm shocked that] he sold my hamster for real!'

The crucial data are given in (59). As shown, (59-B3), which is identical to the polar exclamative in (58a), with an empty SpecCP position, is infelicitous in response to a question[39]. This contrasts with (59-B1) and (59-B2), where *jetzt* 'now' and *da* 'there' occupy SpecCP.

(59) A: Was gibt's neues von der Mitbewohner-Front?
what gives'it new from the roommate-front
'Are there any news from the roommate front?'

B1: **Jetzt** hat der doch tatsächlich meinen Hamster verkauft!!
now has he doch indeed my hamster sold
'He now sold my hamster for real!'

B2: **Da** hat der jetzt doch tatsächlich meinen Hamster verkauft!!
there has he now doch indeed my hamster sold
'He now sold my hamster for real!'

B3:# Hat der jetzt doch tatsächlich meinen Hamster verkauft!!
has he now doch indeed my hamster sold
# '[I'm shocked that] he sold my hamster for real!'

The pattern in (59) is unexpected if (59-B3) is derived from (59-B1) or (59-B2) by means of topic drop, since we know that topic drop is fine in response to a question, (57). We

[39] A similar argument is made for V1-degree exclamatives by Brandner (2010).

need to control for the following two possible confounds. First, one might suspect that situational pronouns like *da* 'there' cannot be dropped by means of *topic drop*. As shown in (60-B2), derived from (60-B1), this concern is unwarranted. (60-B2) is a non-exclamative declarative, expressing the same proposition as (59-B3); however, topic drop is possible here and arguably what underlies the utterance in (60-B2).

(60) A: Was gibt's neues von der Mitbewohner-Front?
what gives'it new from the roommate-front
'Are there any news from the roommate front?'

B1: **Da** hat sich jetzt nicht viel getan in letzter Zeit.
there has self now not much done in last time
'Not much happened lately!'

B2: Hat sich jetzt nicht viel getan in letzter Zeit.
has self now not much done in last time
'Not much happened lately!'

The second confound that we need to address, particularly in contrasting (59-B3) and (60-B2), is the following. Could it be that emphatic declaratives (i.e. declaratives that include *doch tatsächlich*) are generally ill-formed in response to questions? The example in (61) (which lacks the 'exclamative feel' of (58b)) suggests that this may not be the case, corroborating a view that V1-polar exclamatives do not involve topic drop (though there are naturally open questions, such as why a topic drop analysis seems to be blocked in (59-B3)).

(61) Was passiert **dann**? – **(Dann)** schlägt **doch** **tatsächlich** der Otto dem Hans
what happens then then hits doch indeed the Otto the Hans
ins Gesicht.
in.the face
'And what happens then? – Then Otto punches Hans into his face.'

Such observations suggest that V1-polar exclamatives are not derived from V2 declaratives by means of topic drop. Can we also rule out the option that V1-polar

exclamatives are a type of narrative inversion (modulo the possibility that narrative inversion involves something along the lines of topic drop)? Viewing V1-polar exclamatives as a type of narrative inversion is supported by Önnerfors's (1997b) observation that narrative inversion is also bad in response to questions, (62-B3).

(62) A: Was war los?
what was up
'What happened?'

B1: **Da** stand plötzlich ein Mann vor der Tür.
there stood suddenly a man before the door
'Suddenly, there was a man standing in front of the door.'

B2: **Es** stand plötzlich ein Mann vor der Tür.
it stood suddenly a man before the door
'Suddenly, there was a man standing in front of the door.'

B3: ?? Stand plötzlich ein Mann vor der Tür.
stood suddenly a man before the door
'Suddenly, there was a man standing in front of the door.'

(Önnerfors 1997b:51)

Furthermore, narrative inversion and (V1-)polar exclamatives can occur in an out-of-the-blue context, which is generally not possible for topic drop constructions. This is a further argument for grouping V1-polar exclamatives with narrative inversion, and against treating V1-polar exclamatives as topic drop constructions.

However, the following examples suggest one fundamental difference between polar exclamatives and narrative inversion. As Önnerfors (1997a) observes, narrative inversion exhibits a ban on generic statements, shown in (63), which contrast with typical (episodic) narrative inversion cases such as (64).

(63) a.* Sind Kritiker Idioten. / ✓Kritiker sind Idioten.
are critics idiots critics are idiots
'Critics are idiots.' (Önnerfors 1997a:306)

b.* Weinen Kinder leicht. / ✓Kinder weinen leicht.
cry children easily children cry easily
'Children cry easily.' (Önnerfors 1997a:307)

(64) a. Kommt Fritzchen in die Apotheke.
comes Fritz-little into the pharmacy
'Little Fritz comes into the pharmacy.' (*from a joke,* Önnerfors 1997a:293)

b. Regnet es da plötzlich ins Haus.
rains it then suddenly into-the house
'Suddenly, it's raining into the house.' (Önnerfors 1997a:302)

Önnerfors presents the examples without context, but even in a context where a generic statement should be possible with narrative inversion, this ban can be observed. In example (65a), narrative inversion occurs in the second clause; (65b) is comparable in terms of the situation that is discussed. However, (65b) does not allow for narrative inversion; the baseline example of a verb second declarative in (65c) is acceptable.

(65) a. Gestern treffe ich einen Kritiker und eine Journalistin. Ist / Wird
yesterday meet I a critic and a journalist is becomes
der Kritiker aggressiv. Sagt die Journalistin: "Der ist immer so."
the critic aggressive says the journalist he is always thus
'Yesterday I meet *(narrative present)* a critic and a journalist. The critic is / starts to be aggressive. The journalist says: "He's always like that."'

b. Ich habe letztes Jahr viele Kritiker und Journalisten getroffen.
I have last year many critics and journalists met
*Sind/*Werden Kritiker (immer) aggressiv.
are/become critics always aggressive
'I met many critics and journalists last year. Critics are always / always get aggressive.'

c. Ich habe letztes Jahr viele Kritiker und Journalisten getroffen.
I have last year many critics and journalists met
Kritiker sind/werden (immer) aggressiv.
critics are/become always aggressive
'I met many critics and journalists last year. Critics are always / always get aggressive.'

In contrast, polar exclamatives (on a par with degree exclamatives) do not exhibit such a ban against generic statements. This is shown for polar exclamatives in (66).

(66) a. Haben diese Tiere doch glatt vier Beine! *polar exclamative*
have these animals doch outright four legs
'[It's remarkable that] these animals have four legs!'

b. Mensch, sind Kritiker doch tatsächlich Idioten!
man are critics doch indeed idiots
'Man, [it's schocking that] critics are really idiots!'

It is also shown for degree exclamatives in (67).

(67) a. Haben diese Tiere aber viele Beine! *degree exclamative*
have these animals but many legs
'How many legs these animals have!'

b. Mensch, sind Kritiker vielleicht Idioten!
man are critics maybe idiots
'Man, what idiots critics are!'

We can thus conclude that German V1-polar exclamatives do not fall into one of the two well-established categories of V1 declarative clauses, clauses with topic drop and clauses with narrative inversion. On one hand, while topic drop is fine in response to a question, polar exclamatives are not. On the other hand, while narrative inversion exhibits a ban against generic predicates, polar exclamatives (and degree exclamatives) do not. This suggests that V1-polar exclamatives are not simply declaratives with an elided element in SpecCP, corroborating the view that V1-polar exclamatives exist.

A final argument against treating V1-polar exclamatives as some type of declarative can be based on the fact that exclamatives imply the remarkability of the denoted proposition, which is not necessarily the case in declaratives. This diagnostic is slightly confounded by the obligatoriness of particles (such as *doch*, *tatsächlich* 'indeed' etc.) in V1-polar exclamatives, which by themselves have an expressive function. However, to the extent that an effect can be observed, it reproduces the effect in (46). In the presumable polar exclamative case in (68a), remarkability seems to be entailed in some way or other, whereas in (68b+c) it can be canceled.

(68) a. Hat der jetzt doch tatsächlich verschlafen! – # wie wir's uns erwartet haben.
has he now doch indeed overslept as we'it us expected have
*lit.* 'Has he overslept indeed now!' – #'as we expected.'

b. Jetzt hat der doch tatsächlich verschlafen! – wie wir's uns erwartet haben.
now has he doch indeed overslept as we'it us expected have
'Now he overslept indeed!' – 'as we expected.'

c. Der hat doch jetzt tatsächlich verschlafen! – wie wir's uns erwartet haben.
he has doch now indeed overslept as we'it us expected have
'He overslept indeed now!' – 'as we expected.'

This further corroborates the claim that V1-polar exclamatives are not simply a type of V1-declarative.

An open question (at this point) is whether V1-polar exclamatives have a null operator in SpecCP (e.g. Zwart 1993, Brandner 1994), (69a), or whether they are genuine V1-clauses, (69b). The latter view is advocated quite generally for German V1 clauses in Önnerfors (1997b); more recently, Axel & Wöllstein (2008) and Reis & Wöllstein (2010) argue for the existence of genuine V1 clauses in German, which lack a CP specifier altogether. I will not dwell on this matter, as it is not crucial to the present project. However, I will briefly come back to the question of what fills the SpecCP position in V1-exclamations in later sections.

(69) a. [$_{CP}$ Op [$_{C'}$ Kennt [$_{TP}$ der **doch glatt** den Kaiser von China]]]!
knows he doch outrightly the emperor of China
'[I'm shocked that] he knows the emperor of China!'

b. [$_{CP}$ Kennt [$_{TP}$ der **doch glatt** den Kaiser von China]]!
knows he doch outrightly the emperor of China
'[I'm shocked that] he knows the emperor of China!'

To conclude, I have established in this section that there is a type of V1-polar exclamatives, which seems distinct from V1 declaratives involving *topic drop* and *narrative inversion* type. While there are many questions that remain unanswered, given the scope of this project, I will henceforth assume that there are *that*-polar exclamatives as well as V1-polar exclamatives. I consider these to be close relatives of *that*-optatives

and V1-optatives, as both construction types are exclamations of sorts, and both involve an implicit comparison between the denoted proposition and its polar opposite.

## 2.4 Interim Summary

In this chapter, three goals have been achieved. Section 2.1 has delimited the scope of this research project and established a common ground that will provide the background for the entire dissertation. Section 2.2 has affirmatively addressed the most basic of all questions, which is whether optatives constitute a phenomenon at all. The alternative that optatives are merely idiomatic/formulaic expressions has been discarded. A view has been established under which optatives are specialized utterances that have certain prototypical properties, e.g. the presence of an optative particle. It has also been shown that the set of elements that can serve as optative particles minimally includes elements that mean 'only', 'at least' and 'but/though'. It has been demonstrated that such particles seem to be in a bi-conditional relationship with optativity (i.e. particles that mean 'only', 'at least' and 'but/though' can give rise to optativity and designated optative markers can be reanalyzed as particles that mean 'at least', 'but/though' or 'only'). Section 2.3 has broadened the scope of this project slightly, to include polar exclamatives, which can be viewed as the 'next of kin' to optatives: They are intuitively exclamations, they operate on polar opposites and they have a similar shape and form to optatives. Starting out with a discussion of *that*-polar exclamatives, I have argued for the existence of V1-polar exclamatives – a controversial matter largely neglected in recent literature.

# 3. The Core Analysis: A System for Analyzing Exclamations

This chapter gives a complete overview of the system developed in this dissertation. It starts with a bird's-eye view of my proposal and then proceeds with a more detailed discussion.

## 3.1 The EX-Op Analysis: A Bird's-Eye View

### 3.1.1 The Aim of this Project

I henceforth focus on German – a heuristic strategy, given that German has a richer paradigm of optatives than English, cf. (70)+ (71), and German further allows for polar exclamatives much more freely, (72). The aim of this project is to push the idea that we can account for the constructions in (70) and (71) in a uniform way. Specifically, I propose a shared core semantics that underlies all of these constructions rather than relying on extra-linguistic, pragmatic mechanisms to give meaning to them. What we need to derive is the fact that the examples in (70a-c) seem to express an emotion that can be paraphrased as in (70d).

(70) *subjunctive (and counterfactual) optatives*

a. **Daß** er nur rechtzeitig gekommen **wäre**!
that he only in.time come were

b. **Wenn** er nur rechtzeitig gekommen **wäre**!
if he only in.time come were

c. **Wäre** er nur rechtzeitig gekommen $t_{wäre}$!
were he only in.time come
'If only he had come in time!'

d. *paraphrase:* **I wish** [he had come in time].

Similarly, we aim to derive the fact that the examples in (71a+b) seem to express an emotion that can be paraphrased as in (71c).

(71) *indicative optatives*

a. **Daß** er nur rechtzeitig **kommt**!
that he only in.time comes

b. **Wenn** er nur rechtzeitig **kommt**!
if he only in.time comes
'If only he comes in time!'

c. *paraphrase:* **I hope** [he will come in time].

The goal of a semantic (and syntactic) theory is to derive complex and seemingly unrelated phenomena from simple principles, which can then be considered explanatory (von Stechow 1984; cf. Champollion 2010 for recent discussion). It thus seems appealing to posit a system that not only accounts for (70)+(71) in a uniform way, but also for the polar exclamatives in (72a+b), which seem to express the emotion paraphrased in (72c).

(72) *indicative polar exclamatives*

a. **Daß** Sie (doch / tatsächlich / wirklich) daran gedacht **haben**!
that you doch indeed really of.it thought have

b. **Haben** Sie doch (tatsächlich / wirklich) daran gedacht $\mathbf{t_{haben}}$!
have you doch indeed really of.it thought
'That you really remembered it!'

(Scholz 1991:133)

c. *paraphrase:* **I am shocked that** [you remembered it].

I propose a system that uniformly derives all three construction types. The core idea is given in the next section.

### 3.1.2 The System in a Nutshell

I propose that optatives and (polar) exclamatives contain a null operator, which takes the denoted proposition as its complement and serves to *express an emotion* towards the denoted proposition. I call this operator *EX* (mnemonic for *expressive* and *exclamative*). *EX* is loosely inspired by Gutiérrez Rexach's (1996) *EXC* operator, but retains little similarity to *EXC*. Consider first the utterance in (73a); this exclamation is ambiguous

between an optative reading, (73b), and an exclamative reading, (73c); context disambiguates.

(73) a. Mein Gott, **dass** der nicht **verschlafen** **hat**!
my God that he not overslept has
*lit.* My God, that he didn't oversleep!

b. *paraphrase of optative reading:* **I hope** [that he didn't oversleep].

c. *paraphrase of exclamative reading:* **I'm shocked** [that he didn't oversleep].

I propose that both (73b) and (73c) share the same core semantic, sketched in (74) (ignoring the interjection *Mein Gott* 'my God' – I will come back to such elements in section 4.1.8). The idea is that *EX* simply conveys that the modified proposition is high on a scale, and the scale is provided by the context, formalized as a contextually given scale argument $Scale_c$ (or simply *S*), (74a+b).

(74) a. LF for (73): [[EX $Scale_c$] [**dass** der nicht **verschlafen** **hat**]]!
that he not overslept has

b. *EX*($Scale_c$)(*p*) conveys that *p* is above a contextually given threshold on $Scale_c$

We can now derive both readings of (73) without assuming different LF structures. The optative reading arises if the context provides a *(speaker) preference* scale (or *desirability* scale), as shown in (75). The contextually salient threshold ξ on a desirability scale plausibly corresponds to the cut-off line between intolerable circumstances (which are lower / less desirable) and tolerable circumstances (which are higher / more desirable). Therefore, by uttering (75), I express my desire or hope that he (some contextually salient person) didn't oversleep by virtue of marking circumstances in which he didn't oversleep as tolerable.

(75) *optative reading*

[[EX $\mathbf{Scale}_{\text{speaker-preference}}$] [that he didn't oversleep]]

≈ The desirability of [$_p$ he didn't oversleep] exceeds a contextually salient threshold ξ.

Correspondingly, it is plausible that the exclamative reading of (73) arises from a *(speaker) inverse likelihood* scale[40] (or *surprise* scale), as shown in (76). Again, the contextually salient threshold ξ on an inverse likelihood can be assumed to correspond to the cut-off line between what is not surprising (lower / more likely) and what is surprising (higher / more unlikely). By uttering (76), I express an emotion towards the prior unlikelihood of his not having overslept; again, I do so by virtue of marking circumstances in which he didn't oversleep as unlikely / surprising.

(76) *polar exclamative reading*

[[EX **Scale**$_{\textbf{speaker-unlikelihood}}$] [that he didn't oversleep]]

≈ The prior unlikelihood of [$_p$ he didn't oversleep] exceeds a contextually salient threshold ξ.

Crucially, *EX* does not encode mood information, which allows us to uniformly analyze all of the examples in (70)-(72), given in (77)-(79). One part of this dissertation (chapter 5) is dedicated to the question of how mood enters the picture. (On a different note, I argue that particles such as *only* are not lexicalizations of *EX*. Chapter 6 is dedicated to an analysis of the role of particles in exclamations.) The LF representations of different optatives are given in (77) and (78)[41].

(77) *subjunctive (and counterfactual) optatives*

a. [EX Scale$_{\text{speaker-preference}}$ [**Daß** er nur rechtzeitig gekommen **wäre**]!
that he only in.time come were

b. [EX Scale$_{\text{speaker-preference}}$ [**Wenn** er nur rechtzeitig gekommen **wäre**]!
if he only in.time come were

---

[40] Given that we encounter many language-specific idiosyncracies, it is an open question what the complete range of scales is that an *EX* operator can associate with. As discussed in section 4.1.3.4, we minimally find *EX* utterances that express desirability, undesirability and surprise. This is covered by my proposal that *EX* utterances serve to convey emotion, i.e. they cannot convey a non-emotive attitude, such as certainty. It is however not clear whether there are languages that use *EX* utterances to express boredom / ennui (which we would expect to by possible, as it is an emotion). If such languages do not exist, the relevant restriction may derive from extra-linguistic universals, as envisioned by Fries (1991) and Rosengren (1993).

[41] I discuss the distribution of complementizers and (V-to-)T-to-C movement in chapter 5.

c. [EX $\text{Scale}_{\text{speaker-preference}}$ [**Wäre** er nur rechtzeitig gekommen $t_{\text{wäre}}$]!
were he only in.time come
'If only he had come in time!'

(78) *indicative optatives*

a. [EX $\text{Scale}_{\text{speaker-preference}}$ [**Daß** er nur rechtzeitig **kommt**]!
that he only in.time comes

b. [EX $\text{Scale}_{\text{speaker-preference}}$ [**Wenn** er nur rechtzeitig **kommt**]!
if he only in.time comes
'If only he comes in time!'

In the same vein, the LF representations for polar exclamatives are given in (79). Recall that the left peripheries in optatives and polar exclamatives do not differ in their semantics. The *Scale* argument is simply a variable, with its content provided by the context. The subscripted *speaker-preference* in (77)+(78) or *speaker-unlikelihood* in (79) are merely included for expository purposes, to indicate to the reader which contextual assignment is intended.

(79) *indicative polar exclamatives*

a. [EX $\text{Scale}_{\text{speaker-unlikelihood}}$ [**Daß** Sie doch tatsächlich daran gedacht **haben**]]!
that you doch indeed of.it thought have

b. [EX $\text{Scale}_{\text{speaker-unlikelihood}}$ [**Haben** Sie doch tatsächlich daran gedacht $t_{\text{haben}}$]]!
have you doch indeed of.it thought
'[It's remarkable] that you really remembered it!'

The general structure of this dissertation is as follows. Chapter 4 focuses on the *EX* operator, motivating its existence and exploring its implicatures. Chapters 5 and 6 focus on the properties of propositions in the scope of *EX*, e.g. how does complementizer selection work (in chapter 5)? And what do particles contribute (in chapter 6)? I will now give a more detailed summary of the proposal in section 3.2. Before I do so, let me discuss more general motivation for an *EX* operator. By asking for the reason of why *EX* exists, we move 'beyond explanatory adequacy', exploring the question of *why* language has the properties that we encounter when we study it, rather than simply investigating these properties (Chomsky 2001, cf. Champollion 2010 for a recent discussion).

### 3.1.3 On the Cognition–Emotion Dichotomy

In psychology and the neurosciences, we find a traditional distinction between *cognition* (higher-order processes, including memory, attention, problem solving and planning) and *emotion/affect* (phenomena such as motivation, evaluation and feeling); see Pessoa (2008) for a recent review, see also Izard (2009) for an overview. While recent research indicates that emotion and cognition cannot be treated as separate modules in the brain (e.g. Phelps 2006, Pessoa 2008), it is rather uncontroversial that human behaviors have both cognitive and affective component. In other words, human behavior has a cognitive dimension and an emotional/affective dimension (which are not necessarily orthogonal or separable).

The idea that I pursue was pioneered in Rosengren (1992, 1993), based on the ideas of Fries (1991), though my analysis differs fundamentally from Rosengren's proposal. I argue that *EX*-utterances are, strictly speaking, *expressive utterances* and thus distinct from regular statements, which are *descriptive utterances*. I define *expressive utterances* as utterances that serve to directly express an emotional or affective state; they are thus either felicitous or infelicitous in a given context, but not true or false. An (informal) example is given in (80).

(80) An utterance of "If only John had come in time" is **felicitous** iff the (counterfactual) proposition *John came in time* is ranked above a contextually salient threshold on the speaker$_c$'s preference/desirability scale.

In contrast, *descriptive utterances*, the more familiar type, are utterances that express a truth value. An (informal) example is given in (81).

(81) $||$I wish John had come in time$||^c$ is **true** iff the (counterfactual) proposition *John came in time* is ranked above a contextually salient threshold on the speaker$_c$'s preference/desirability scale.

The core idea is that expressive utterances are linked to emotion/affect in the same way in which descriptive utterances are linked to cognition; uttering an optative or a (polar) exclamative is an *emotional/affective behavior*, whereas uttering a declarative statement

is a *cognitive behavior*. The only core differences between the two utterance types is that expressive utterances contain an *EX* operator, which descriptive utterances lack. (*EX* combines with a truth-conditional statement and yields a felicity-conditional utterance.) This close connection between the two utterance types is unsurprising given the interconnectedness of cognition and emotion in the human brain. A schematic summary of the proposal is given in (82).

(82) *Broader Cognition:* Cognition Emotion

*Grammar:* Utterances without EX Utterances with EX

Notably, the effects of expressive utterances and descriptive utterances can be quite similar, specifically when a descriptive utterance doubles as the paraphrase of an expressive utterance, in the sense in which (84a+b) correspond to (83a+b) respectively.

(83) *expressive utterance (EX is present)*

a. Boy, is this easy! ⇒ **expresses** surprise
b. If only it was easy! ⇒ **expresses** my desire

(84) *descriptive utterance (EX is absent)*

a. I am surprised at how easy this is. ⇒ **describes** surprise
b. I wish that it was easy. ⇒ **describes** my desire

The relation between (83) and (84) is analogous to the relation between (85a) and (85b).

(85) a. That asshole John is now coming to my party! ⇒ **expresses** dislike
b. I hate John and he's now coming to my party. ⇒ **describes** dislike

To locate this system in a broader context, it can be observed that the distinction between truth conditions and felicity conditions that I posit directly inherits the distinction between descriptive and expressive meaning found in Kratzer (1999), Potts (2005) and related work.

Summarizing this section, there is a non-linguistic motivation for the existence of an *EX* operator, which is the perceived need to sometimes directly *express* an emotion or affective state (e.g. by saying *DAMN!*) rather than just *describe* it (e.g. by saying *I am unhappy right now*). The distinction between expressive *EX*-utterances and descriptive *EX-less* utterances serves exactly this purpose.

### 3.1.4 The Views of Others: How to classify this type of analysis

Before moving on to a brief in-depth discussion of my proposal, it is worth considering the broader context in which it is situated. Let me first review some background on *clause types* (ways of categorizing different sentence forms according to their function). Grammarians of German and English differ in their views on clause types[42] (see Bach & Harnish 1979, Sadock & Zwicky 1985). One of the most wide-spread views assumes that there are three universal *clause types* (or *sentence types/moods*): declaratives, interrogatives and imperatives, given in (86a-c). This view has been advocated in Bierwisch (1980), Altmann (1987), Brandt et al. (1992), and more recently Portner (2005, 2007). Alternative views (particularly for English) assume that exclamatives are also a *basic clause type* (or *major clause type*), cf. Nelson (2001 [2011$^2$]), given in (86d). Other scholars (particularly for German) assume that exclamatives and optatives, (86d)+(86e), are also *basic clause types*, e.g. Scholz (1991), see also Önnerfors (1997ab) (for German) and Lyons (1995) (for English). Some proponents of the view that there are three universal clause types categorize exclamatives and optatives as *minor clause types* (e.g. Akmajian et al. 2001).

(86) a. *declaratives:* Mary was quiet.
b. *interrogatives:* Was Mary quiet? / How quiet was Mary?
c. *imperatives:* Be quiet!
d. *exclamatives:* Boy, was Mary ever quiet! / How very quiet Mary was!

[42] I limit the scope of this discussion to declaratives, interrogatives, imperatives, exclamatives and optatives. Cross-linguistically, scholars have also argued that *hortatives* and *jussives* are basic clause types. I will not be addressing these.

e. *optatives:* If only Mary were quiet!

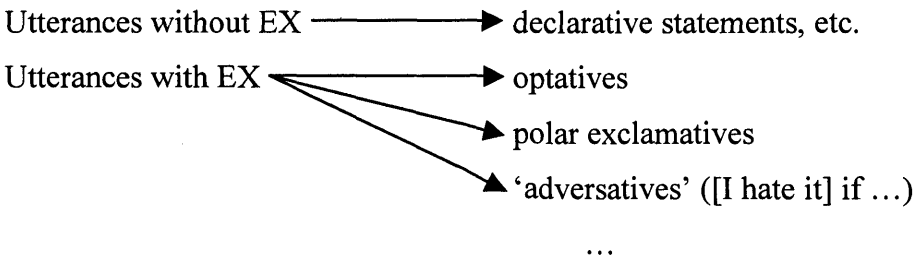
Crucially, *clause type* is, without further formalization, a purely descriptive concept, as the classification of a clause $\sigma$ as being of clause type $\tau$ does not derive anything apart from summarizing $\sigma$'s properties as a member of category $\tau$ (see also Schwager 2006 for a relevant discussion of clause types).

However, it is worth noting that the existence and special status of exclamatives and optatives has been noted, so the question arises how to best account for the form-function pairing that such utterances exhibit. What my proposal achieves is a minimal account for such "minor clause types", which essentially assumes that there are utterances (those that contain *EX*) that directly express an emotion, whereas there are utterances (those that lack *EX*) that do not. This system can easily be extended to novel utterance types, such as (87), which serves to express disgust or dislike and might be aptly called an *adversative*; (87) can be transparently treated as an *EX* utterance with an inverse *desirability* scale.

(87) Mein Gott! Der Olaf! Wenn ich den schon sehe!
my God the Olaf if I him already see
*lit.* 'My God! Olaf! If I just see him!'
≈ 'It **makes** me **sick** [if I see Olaf]!'
(Scholz 1991:48, translation and paraphrase is mine)

The system is schematically summarized in (88).

(88) *Schema of the EX-Hypothesis*



By arguing for such a view, I argue against a view that assumes more idiosyncratic pairings of form and function, as schematized in (89).

(89) *Schema of other Hypotheses (which are rather 'taxonomical' / 'cartographical')*

Default declarative use ⟶ declarative statements, etc.
Trigger for DESIRE ⟶ optatives
Trigger for SURPRISE ⟶ polar exclamatives
Trigger for DISLIKE ⟶ 'adversatives' ([I hate it] if …)
…

One view that assumes a system as in (89) is the *matrix clause deletion* approach to root uses of apparently embedded clauses (Evans 2007). Such an approach assumes that (90a) is underlyingly (90b) under its polar exclamative reading, whereas it is underlyingly (90c) under its optative reading; in each case, the elided material is assumed to be structurally represented and present at LF.

(90) a. Mein Gott, dass der nicht verschlafen hat!
my God that he not overslept has
*lit.* My God, that he didn't oversleep!

b. *that-polar exclamative*

Mein Gott, [~~es überrascht mich~~, [dass der nicht verschlafen hat]]!
my God it surprises me that he not overslept has
'My God, I'm surprised that he didn't oversleep!'

c. *that-optative*

Mein Gott, [~~ich hoffe~~, [dass der nicht verschlafen hat]]!
my God I hope that he not overslept has
'My God, I hope that he didn't oversleep!'

I argue against the matrix clause deletion approach on empirical grounds in chapter 4.1.4.

Another approach that may be viewed as representing schema (89) assumes that optativity (and, presumably, exclamativity) is derived in the pragmatics by virtue of being appropriate responses to a specific *Question Under Discussion* (Biezma 2011ab). I

review such an approach in section 4.2. In this case, each reading comes about as response to a specific Question Under Discussion (which thus serves as a specific trigger for that reading). Such a view can be roughly illustrated as in (91) (my rendering of Biezma 2011ab).

(91) a. *Question Under Discussion (implicit to the discourse, not explicitly stated):*
How do we get to catch the bus in time?

b. *Appropriate Partial Answer:*

| Wenn | er | nur | nicht | verschlafen | hat! |
|---|---|---|---|---|---|
| if | he | only | not | overslept | has |

'If he only didn't oversleep!'

⇒ *that he didn't oversleep* is a good means to achieve our goals.
⇒ *that he didn't oversleep* is desirable. (Optativity is derived.)

A view advocated in Zaefferer (2006), and also in Grosz (2011) is that the meanings of optatives (and polar exclamatives) correspond to conventionalized uses of the *that-*, *if-* or V1-clauses that are uttered. In other words, we are dealing with conventionalized speech acts. I view the present system as a generalized implementation of such a view; the *EX-* operator determines the use of the denoted proposition, namely to express an emotion, and the scale that it associates with fine-tunes which emotion is expressed. It is easy to see how my approach captures the intuitions underlying a *Conventionalized Speech Act* approach, as sketched in (92). If we decompose the speech acts in (92b) and (92c) into an EXPRESS.X component and a {X = DESIRE, X = SURPRISE} component, it is easy to see that the EXPRESS.X part is captured by *EX*, whereas the {X = DESIRE, X = SURPRISE} part is captured by positing a contextually assigned scale argument.

(92) a.

| Mein | Gott, | dass | der | nicht | verschlafen | hat! |
|---|---|---|---|---|---|---|
| my | God | that | he | not | overslept | has |

*lit.* My God, that he didn't oversleep!

b. *optative rule:* utterance of [*that*-clause] ⇒ EXPRESS.DESIRE

c. *exclamative rule:* utterance of [*that*-clause] ⇒ EXPRESS.SURPRISE

Finally, we can conceive of an approach that assumes (in line with ideas presented in Rifkin 2000) that the prototypical particles that we find in optatives and exclamatives (which may be covert if there are none) are *illocutionary force modifiers* (building on Jacobs 1991). Such a view is sketched in (93), where *doch* is assumed to be responsible for turning (93a) into an expression of a wish, plausibly by means of the process in (93b).

(93) a. Wenn er **doch** rechtzeitig gekommen wäre!
if he doch in.time come were
'If only he had come in time!'

b. Speech act modification:

An utterance of *doch*[if p] has by virtue of the meaning of *doch* (analyzed as a speech act modifier) a use of expressing *a wish [that p]*.

I present arguments against such an approach in chapter 6, by discussing the role of particles in optatives (and polar exclamatives); I argue that particles essentially act as modulating and disambiguating elements, thus determining speech acts only indirectly.

To conclude this section, I have argued for a system of the type that is summarized in (94), omitting analysis-specific details.

(94) *The Exclamation-Operator Hypothesis (The EX-Op-Hypothesis):*

Optatives, exclamatives and related utterances involve an operator *EX* (mnemonic for exclamation) that combines with a truth-conditional statement and turns it into a felicity-conditional *expression of an emotion.*

I argue against views that assume optativity or exclamativity to arise on a case-by-case basis, e.g. due to individualized triggers, such as an *optative-triggering particle*. In global terms, such a view can be summarized as follows.

(95) *The Hypothesis of Expressive Conspiracies (The Ex-Con-Hypothesis):*

Optatives, exclamatives and seemingly related utterances are actually completely unrelated, and their meanings arise on a case-by-case basis, either for pragmatic reasons or due to grammaticalized triggers.

Notably, the Ex-Con-Hypothesis does not inherently posit any meaningful relationship between the *that*-optative in (96a) and the *if*-optative in (96b). It is quite possible under an Ex-Con view that the meaning of (96a) comes about in ways fundamentally different to how the meaning of (96b) comes about. By contrast, according to the EX-Op-Hypothesis, the two utterances are quasi-identical, modulo the different (semantic) mood information potentially associated with *wenn* 'if' as opposed to *dass* 'that' (cf. chapter 5).

(96) a. **Daß** er nur rechtzeitig gekommen **wäre**!
that he only in.time come were

b. **Wenn** er nur rechtzeitig gekommen **wäre**!
if he only in.time come were
'If only he had come in time!'

Similarly, there may be renderings of the Ex-Con-Hypothesis under which some or all of the examples in (97a-c) are unrelated to each other, given that they contain different particles, which may trigger different uses. Again, an EX-Op-Hypothesis assumes that the core meanings of (97a-c) are identical, modulo fine-tuning by virtue of the particles.

(97) a. Wenn er **nur** rechtzeitig gekommen wäre!
if he only in.time come were
'If only he had come in time!'

b. Wenn er **doch** rechtzeitig gekommen wäre!
if he doch in.time come were
'If only he had come in time!'

c. Wenn er **wenigstens** rechtzeitig gekommen wäre!
if he at.least in.time come were
'If only he had come in time!'

Having thus presented the big picture, as pertains to my dissertation, I now proceed to present a close-up summary of my proposal in a nutshell.

## 3.2 The EX-Op Analysis: A Worm's-Eye View

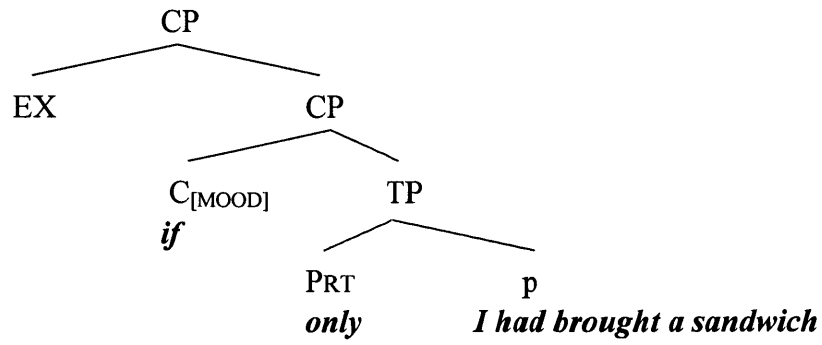
### 3.2.1 In a Nutshell

The previous system presented the core idea underlying this dissertation project. In this section, I present a summary of the entire analysis, focusing on a limited set of examples and how to derive them. Motivating assumptions and exploring their implications need not concern us now; this will be the main subject of investigation in the subsequent chapters, 4, 5 and 6. Consider first the utterance in (98).

(98) If only I had brought a sandwich!

To derive the wish that (98) expresses, I propose a system that has three main ingredients: an operator *EX*, as discussed in section 3.1; *Mood* features that are located in C and responsible for the choice of complementizer (here: *if*); and a semantic analysis for different particles (here: *only*). Schematically, the derivation is given in (99). The role of *EX* is to combine with a truth-conditional expression of type <s,t> (i.e. a proposition) and map it onto felicity conditions that capture the speaker's attitude towards that proposition. As for *Mood* features and particles, I propose that they are purely presuppositional; they are truth conditionally vacuous (i.e. if defined they denote the function $\lambda p.p$). On the presuppositional level (formalized in terms of definedness conditions), they provide background information on the speaker's belief state (in the case of *Mood*), or further specify the speaker's emotion to the denoted proposition (in the case of particles).

(99)



In the following sub-sections, I briefly discuss each of these three ingredients, starting with the simplest and most crucial case (*EX* itself) in section 3.2.2. I then proceed to introduce the role of particles in section 3.2.3, and I then analyze the role of semantic mood in section 3.2.4.

### 3.2.2 Introducing EX

The empirical scope of this sub-section is limited to two core cases of what can be labeled *exclamations*, as these are subject to the least confounds: I focus on particle-less, indicative *that*-optatives and *that*-polar exclamatives. Let us start with a few examples that are ambiguous between an optative reading and a polar exclamative reading in (100). Each of the unembedded *that*-clauses in (100) is ambiguous between an optative reading, under which it expresses some type of desire, and a polar exclamative reading, under which it expresses some type of surprise. Note that these utterances are, in a sense, *surface-minimal pairs*; the context always disambiguates, as follows. Optative readings require the denoted proposition to be *non-factive*, whereas polar exclamatives require the denoted proposition to be *factive* (on a par with what has been observed for degree exclamatives, cf. Elliot 1971, 1974; Grimshaw 1979; Zanuttini & Portner 2000, 2003; Abels 2010). I discuss this discrepancy in chapter 5.2. For now, let us gloss over this difference, which is orthogonal to my proposal for *EX*.

(100) a. Dass EIN Mal am Wochenende die Sonne scheint!
that one time on.the week.end the sun shines
*lit.* 'That once the sun is shining on the weekend!'

*opt. reading:* [I want] that for once the sun shines on the weekend!
*excl. reading:* [I'm surprised] that for once the sun shines on the weekend!

b. Mein Gott, dass der heute nicht verschlafen hat!
my God that he today not overslept has
*lit.* 'My God, that he didn't oversleep today!'

*opt. reading:* [I hope] that he didn't oversleep today!
*excl. reading:* [I'm shocked] that he didn't oversleep today!

c. Und dass du dich nicht schämst!
and that you you not be.ashamed
*lit.* 'And that you're not ashamed!'

*opt. reading:* [I want] that you are not ashamed!
*excl. reading:* [I'm shocked] that you are not ashamed!

Focusing on the relatively simple utterances in (100) (*simple* in the sense that they do not contain particles or counterfactual mood marking), I propose that such utterances involve two crucial ingredients: The denoted proposition $\varphi$ and a null operator *EX*. For the time being, let us treat complementizers as semantically vacuous, and ignore optional interjections (*Mein Gott!* 'my God' in (100b)) as well as clause-initial coordinators (*und* 'and' in (100c)).

The meaning of *EX* can now be given as in (101a) (see section 4.1.2 for auxiliary definitions), and the two core ingredient are compositionally put together as in (101b).

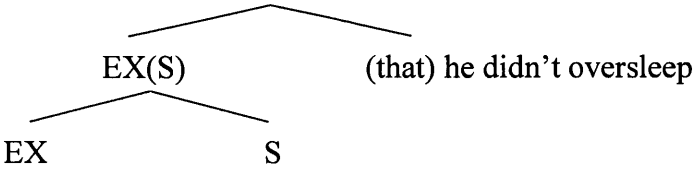
(101) a. For any scale *S* and proposition *p*, interpreted in relation to a context *c* and assignment function *g*, an utterance EX(S)(p) is felicitous iff [43]

$\forall q[\text{THRESHOLD}(c) >_S q \rightarrow p >_S q]$

"EX expresses an emotion that captures the fact that *p* is higher on a (speaker-related) scale *S* than all contextually relevant alternatives *q* below a contextual threshold."

*where* THRESHOLD(c) is a function from a context into a set of worlds / a proposition that counts as high with respect to a relevant scale *S*.

b. EX(S)(he-didn't-oversleep) is felicitous iff
$\forall q[\text{THRESHOLD}(c) >_S q \rightarrow$ he-didn't-oversleep $>_S q]$
"The speaker expresses an emotion that [he didn't oversleep] is relatively high on *S*."




[43] Strictly speaking, $\forall q[\text{THRESHOLD}(c) >_S q \rightarrow p >_S q]$ can be abbreviated as $p \geq_S \text{THRESHOLD}(c)$. I will however maintain the non-abbreviated version throughout this dissertation, based on how rankings among propositions are defined in chapter 4.

We derive the optative and exclamative reading by means of the scale variable, which is contextually bound: If *S* refers to a scale that models the speaker's preferences (i.e. a bouletic scale), we get an optative reading. If *S* refers to a scale that models the speaker's surprise (i.e. an inverse prior likelihood scale), we get a polar exclamative reading. The details of this analysis are given in chapter 4. Having shown how we will account for the most simple cases, we can now introduce particles to see how these can be integrated into the analysis. (For expository reasons, I first discuss particles and then mood, whereas in the overall structure, I first discuss mood, in chapter 5, and then particles, in chapter 6.)

### 3.2.3 The Role of Particles in Exclamations

In this section, I argue that particles serve two functions in exclamations: First, they can modulate the wish, surprise or other emotion that is expressed by an utterance that contains *EX*; they do so by triggering different presuppositions with respect to the modified proposition. Second, particles can disambiguate between different types of exclamations; by and large, they do so by virtue of being incompatible with other types of exclamations. On a larger scale, I argue for a system (in section 6.5) that captures the fact that particles in a language like German play a crucial role in clause typing. In contrast to approaches that view them as speech act modifiers (cf. Jacobs 1991), I argue that their clause typing effect arises as a conspiracy, due to their disambiguating nature.

To illustrate their first function in exclamations (modulating the expressed emotion), consider two different variants of (102a) under its optative reading (I will omit literal translations unless relevant). The difference between *nur* 'only' in (102b) and *wenigstens* 'at least' in (102c) is that *nur* 'only' conveys a general notion of moderation (i.e. 'This is not much to ask!' / 'I'd be satisfied with this little!'), whereas *wenigstens* 'at least' conveys that there is a specific alternative that I would prefer, but that seems to be unachievable (which is why I'm settling for less).

(102) a. Dass EIN Mal am Wochenende die Sonne scheint!
that one time on.the week.end the sun shines
'[I want] that for once the sun shines on the weekend!'

b. Dass **nur** EIN Mal am Wochenende die Sonne scheint!
that only one time on.the week.end the sun shines
'If **only** for once the sun shines (were to shine) on the weekend!'

*only* conveys: 'This is not much to ask for!'

c. Dass **wenigstens** EIN Mal am Wochenende die Sonne scheint!
that at.least one time on.the week.end the sun shines
'[I want] that **at least** the sun will shine on the weekend for once!'

*at least* conveys: 'There is something else that I want even more!'

I argue that this is the core contribution of particles in optatives. They convey additional information on the denoted proposition, and they do so at the presuppositional level[44]. To derive the examples in (102b) and (102c), we can posit lexical entries in (103a) and (103b). As indicated, the particles do not change the felicity conditions of an *EX*-utterance, i.e. (103c) has the same felicity conditions as (101b). Yet, what the particles add are additional presuppositions that the desired proposition is 'not much to ask' or 'less than optimal'.

(103) a. $||only_{2,C}|| = \lambda S.\lambda p :$ MOST $q \in g(C)$ $[q >_S p]$ . LOWNESS
$p$ IDENTITY

"*only*$_2$ is a truth-conditionally vacuous element (different from canonical *only*), which triggers a presupposition that the modified proposition is low on a contextually provided scale."

(loosely based on Guerzoni's 2003 *nur*$_2$)

b. $||wenigstens_C||^{g,c} = \lambda S.\lambda p :$
S is a bouletic ordering $\wedge$ BOULETIC
$\exists r \in g(C)$ $[r >_S p] \wedge \exists q \in g(C)$ $[p >_S q]$ . SECOND CHOICE
$p$ IDENTITY

"*wenigstens* is a truth-conditionally vacuous element (corresponding to English concessive *at least*), which combines with a bouletic scale and presupposes that there is a contextually salient proposition that is more preferable than the modified proposition, as well as a contextually salient proposition that is less preferable."

(based on Nakanishi & Rullmann's 2009 *concessive at least*)

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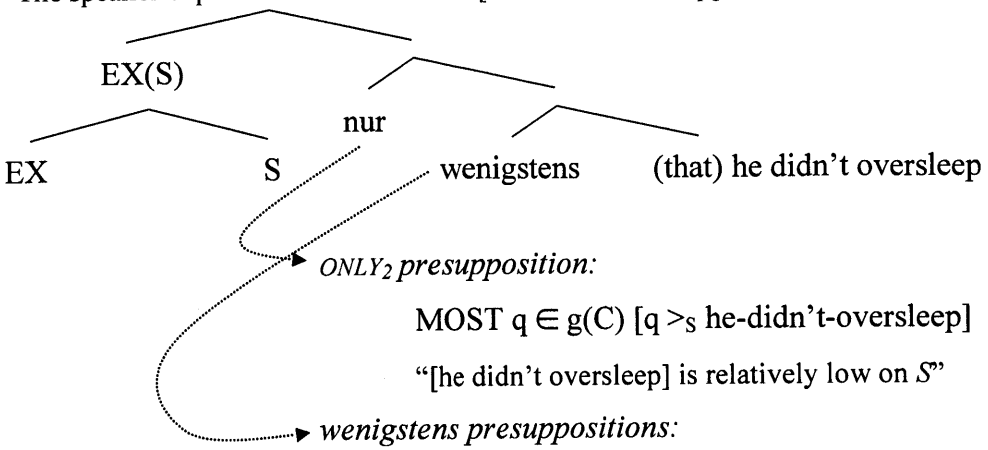
[44] It is in principle also conceivable that their non-truth-conditional contribution takes place at the level of conventional implicature. It is beyond the scope of this project to extensively compare the two options.

c. EX(S)(he-didn't-oversleep) is felicitous iff
$\forall q$[THRESHOLD(c) $>_S$ q $\rightarrow$ he-didn't-oversleep $>_S$ q]
"The speaker expresses an emotion that [he didn't oversleep] is relatively high on *S*."




*ONLY*$_2$ *presupposition:*
MOST q ∈ g(C) [q $>_S$ he-didn't-oversleep]
"[he didn't oversleep] is relatively low on *S*"

*wenigstens presuppositions:*
∃r ∈ g(C) [r $>_{preference}$ he-didn't-oversleep] ∧
∃q ∈ g(C) [he-didn't-oversleep $>_{preference}$ q]
"[he didn't oversleep] is not optimal but acceptable"

A third particle that I will focus on is German *doch*, which is limited to counterfactual optatives and cannot occur in indicative optatives.

(104) a.# Dass **doch** EIN Mal am Wochenende die Sonne scheint![45]
that doch one time on.the week.end the sun shines

b. Dass **doch** EIN Mal am Wochenende die Sonne geschienen hätte!
that doch one time on.the week.end the sun shined had
'If **doch** for once the sun had shined on the weekend!'

*doch* conveys: 'This is in conflict with reality, where the sun is not shining!'

Postponing a discussion of mood to the next section, a lexical entry for *doch* can be given as follows, assuming (in the spirit of Kratzer & Matthewson's 2009 analysis of *ja*) that *doch* is simply a presupposition trigger. It is integrated into the clause in the same way

[45] This is completely unacceptable under an optative reading. Interestingly, while (104a) is in principle acceptable under a polar exclamative reading, this particular example is marginal under such a reading as well, or at least very marked with the given stress pattern. The polar exclamative reading of (104a) improves if the main stress is placed on *doch* and *ein* 'one' is distressed. For more natural polar exclamatives with unstressed *doch*, see section 6.4, and particularly examples (783) and (791).

that *nur* 'only' and *wenigstens* 'at least' are, as a truth-conditionally vacuous presupposition trigger.

(105) $\|\text{doch}_C\|^{g,c,w} = \lambda p :$

$\exists q \in g(C)\ [p \neq q\ \&\ \neg[p(w) \wedge q(w)]] \wedge$ CONFLICT

$p \cap \text{Dox}_{\text{speaker}}(w) = \varnothing \vee \neg p \cap \text{Dox}_{\text{speaker}}(w) = \varnothing\ .$ FAMILIARITY

$p$ IDENTITY

"*doch* is a truth-conditionally vacuous element, which triggers a presupposition that the truth/falsity of the modified proposition is established and that the modified proposition conflicts with some contextually salient proposition."

(based on Grosz 2010, Kratzer & Matthewson 2009)

Having outlined how particles contribute presuppositions that modulate the expression of an emotion that *EX* utterances perform, we can now consider the second function that particles fulfill in such utterances. Particles can disambiguate between different types of exclamations (and, for what it's worth, between exclamations and utterances that are not exclamations). It is conceivable that this is connected to their lexical semantics (*doch* emphasizing a polar contrast, *wenigstens* 'at least' requiring a bouletic scale, and *nur* 'only' conveying moderation on some scale). To illustrate the disambiguating effect of particles, consider first the examples in (106), which are identical to those in (100) except for the occurrence of *nur* 'only' in (106). What we observe is that (106a-c), without *nur* 'only', are ambiguous between an optative reading and a polar exclamative reading. After inserting *nur* 'only', as in (106a-c), the polar exclamative reading disappears. By virtue of some property of *nur* 'only', this reading seems to be blocked.

(106) a. Dass **nur** EIN Mal am Wochenende die Sonne scheint!
that only one time on.the week.end the sun shines
*lit.* 'That once the sun is shining on the weekend!'

*opt. reading:* [I want] that for once the sun shines on the weekend!

* *excl. reading:* [I'm surprised] that for once the sun shines on the weekend!

b. Mein Gott, dass der heute **nur** nicht verschlafen hat!
my God that he today only not overslept has
*lit.* 'My God, that he didn't oversleep today!'

*opt. reading:* [I hope] that he didn't oversleep today!
* *excl. reading:* [I'm shocked] that he didn't oversleep today!

c. Und dass du dich **nur** nicht schämst!
and that you you only not be.ashamed
*lit.* 'And that you're not ashamed!'

*opt. reading:* [I want] that you are not ashamed!
* *excl. reading:* [I'm shocked] that you are not ashamed!

Contrastively, to provide a second example of the disambiguating effect of particles, (unstressed) *doch* does not always disambiguate between optatives and polar exclamatives, as shown in (107), which has both an optative reading, (107b), and a polar exclamative reading, (107c).

(107) a. **Hätte** die dem **doch** tatSÄCHlich das Buch gegeben!
had$_{subj}$ she him doch indeed the book given
*lit.* Had$_{subjunctive}$ she indeed given him the book!

b. 'If only she had given him the book!' *opt.*

c. '[It's shocking that] she would have indeed given him the book!' *p.exc.*

(adapted from Scholz 1991:132-133, attributing the example to Norbert Fries)

However, while *doch* does not disambiguate between optatives and polar exclamatives, it can be shown to eliminate degree exclamative readings in V1-clauses, typically in favor of polar exclamative readings. Minimal pairs are difficult to construct, but the following pair comes closest to an acceptable minimal pair. German V1-degree exclamatives typically contain the particle *aber* (literally 'but') or *vielleicht* (literally 'maybe'), cf. Rosengren (1992), Brandner (2010). As shown in (108a), we cannot replace *aber* 'but' by *doch* without changing the clause from a degree exclamative into a polar exclamative; conversely, in (108a), we cannot replace *doch* by *aber* 'but', without changing the clause from a polar exclamative into a degree exclamative.

(108) a. Hat der **aber / #doch** wirklich nochmal Schwein gehabt! *degree excl.*
has he but #doch really again pig had
'Boy, was he lucky again!'

(adapted from http://meinews.niuz.biz/d-t584936p2.html)

b. Hat der **doch / #aber** wirklich nochmal Schwein gehabt! *polar excl.*
has he doch #but really again pig had
'[I'm shocked that] he was lucky again!'

More natural examples typically involve more than one difference, as given in (109).

(109) a. Mensch, hat der **aber** getanzt! *degree exclamative*
man has he but danced
'Man, how he danced!'

b. Mensch, hat der **doch** **glatt** getanzt! *polar exclamative*
man has he doch outright danced
'Man, [I'm shocked that] he danced!'

A similar example is given in (110), where *vielleicht* 'maybe' is used instead of *aber* 'but'.

(110) a. Mensch, hat der **vielleicht** gelogen! *degree exclamative*
man has he maybe lied
'Man, how he was lying!'

b. Mensch, hat der **doch** **glatt** gelogen! *polar exclamative*
man has he doch outright lied
'Man, [I'm shocked that] he lied!'

Alternatively, in some cases, *doch* can block a degree exclamative reading in favor of an optative reading. This is illustrated in (111), adapted from Rosengren (1993). Notably, such utterances are more complex than the examples in (108)-(110), as follows. The particle *doch* can only occur in counterfactual, subjunctive-marked optatives. Therefore, a surface-minimal pair must be in the subjunctive; as polar exclamatives and degree exclamatives are factive, they cannot be counterfactual – instead, they must be implicitly conditionalized. This should be clear from the glosses.

(111) a. Wäre ich **doch** / **#vielleicht** reich! *optative*
were I doch #maybe rich
'If only I were rich!' *(counterfactual)*

b. Wäre ich **vielleicht** / **#doch** reich! *degree exclamative*
were I maybe #doch rich
'Boy, would I be rich!' / 'How rich I would be!' *(non-counterfactual, factive)*

However, in short, we can generalize that *doch* is compatible with optatives and polar exclamatives, but eliminates degree exclamatives. I propose that this is due to the inherent polarity of *doch* – by virtue of its presuppositional meaning it contrasts the denoted proposition with a single salient, conflicting proposition. In optatives, the denoted (*wished for*) proposition is contrasted with the proposition that describes what is the case. In polar exclamatives, the denoted (*surprising*) proposition is contrasted with the proposition that describes what was originally expected. We can explain the incompatibility of *doch* and degree exclamatives by assuming that such a polar / binary pairing of two propositions is not directly possible in degree exclamatives. In this sense, *doch* blocks a degree exclamative reading, disambiguating towards a polar exclamative or optative reading.

In sum, to account for particles in exclamations, I have introduced a third ingredient into the system from section 3.2.2. Particles are typically truth-conditionally vacuous presupposition triggers, which serve to modulate the proposition in the scope of the *EX* operator. What is worth pointing out is that my analysis takes a uniform perspective to so-called "focus particles" such as *nur* 'only' and *wenigstens* 'at least' on the one hand and to so-called "discourse particles" such as *doch* on the other hand. The purported distinction between focus particles and discourse particles is thus implicitly eliminated, following the presuppositional approach sketched in Kratzer & Matthewson (2009). The difference between an element like *nur* 'only' and an element like *doch* reduces to their different lexical entry – there is no categorical distinction. (See chapter 6 for the details of my analysis of particles.) Having given an outline of my analysis for particles, I turn to the final ingredient that I am concerned with: Mood, by which I mean semantic mood, not morphological mood.

### 3.2.4 The Role of Mood in Exclamations

The third core question that I address in this dissertation concerns the connection between semantic mood (subsuming counterfactuality, factivity, etc) and the overt material that fills the complementizer position in a language like German. In spite of the way I present things in the present section, I will discuss this topic before discussing particles, in chapter 5. The two questions that I address can be stated as follows. First, we want to understand what constrains the possibility of (V-to-)T-to-C movement, (112a), and the distribution of different complementizers in exclamations, (112b+c).

(112) a. **Wäre** er nur rechtzeitig gekommen $t_{wäre}$!
were he only in.time come

b. **Daß** er nur rechtzeitig gekommen **wäre**!
that he only in.time come were

c. **Wenn** er nur rechtzeitig gekommen **wäre**!
if he only in.time come were
'If only he had come in time!'

Second, we want to understand how mood information enters into the computation of an exclamation. Specifically, if we utter (113a), how does the presupposition arise that *we don't yet know* whether it has happened (i.e. non-counterfactuality), whereas in (113b), it is presupposed that *we already know* that it did *not* happen (i.e. counterfactuality).

(113) a. **Wenn** er nur rechtzeitig **gekommen ist**!
if he only in.time come is
'If only he came in time!'
⇒ I HOPE THAT [he has arrived in time].

b. **Wenn** er nur rechtzeitig **gekommen wäre**!
if he only in.time come were
'If only he had come in time!'
⇒ I WISH THAT [he had arrived in time].

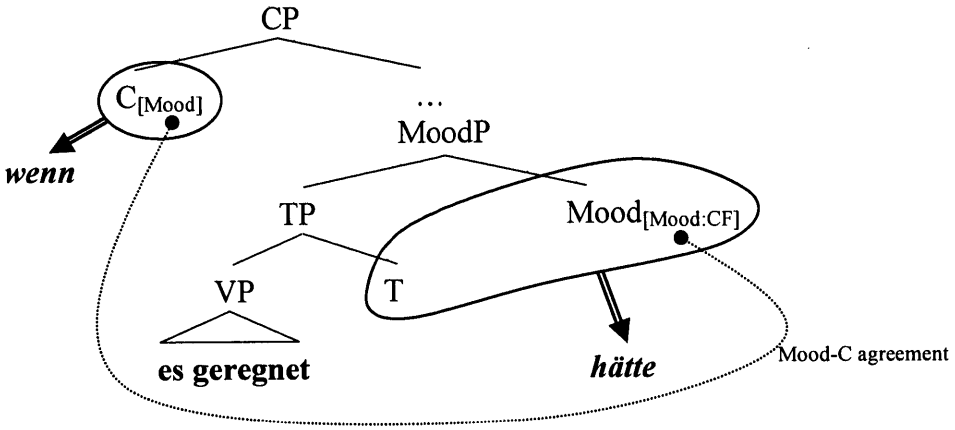
The core idea that I posit incorporates and implements insights from different lines of research. Specifically, I incorporate Truckenbrodt's (2006ab) insights on (V-to-)T-to-C

movement with our knowledge on mood selection (e.g. Portner 1997, Quer 1998, Giannakidou 1999), and formalize my proposal in a Pesetsky & Torrego (2001) type system.

Focusing on German, I argue that semantic mood (which I will shortly explain in more detail) is overtly marked in two locations: On the inflected verb or auxiliary (where it takes the shape of morphological mood, indicative or subjunctive) and in C, where it co-determines the possible complementizers (*wenn* 'if' or *dass* 'that') and the (im)possibility of (V-to-)T-to-C movement. I implement this by assuming a Mood head that enters an agreement relation with C. The idea is schematically illustrated in (114).

(114)a. Ach, **wenn** es geregnet **hätte**!
oh if it rained had
'If only it had rained!'

b.




More precisely, I implement the above idea by assuming that semantic mood is encoded in *Mood*, a head that is located above *T*. Mood encodes information on the epistemic status of the modified proposition (e.g. does the speaker believe in its truth, falsity or neither?). This information is presuppositional in nature, as given in (115).

(115)a. $||\text{iMood}_{\text{CF}}||^c = \lambda p \,.\, \lambda w : p \cap \text{Dox}_{\text{speaker}}(w) = \varnothing \,.\, p(w)$ COUNTERFACTUALITY

"The speaker presupposes *p* to be false."

b. $||\text{iMood}_{\text{DEF}}||^c = \lambda p \,.\, \lambda w \,.\, p(w)$ UNMARKED MOOD

($\text{iMood}_{\text{DEF}}$ does not trigger any presuppositions with respect to the truth or falsity of *p*)

c. $||\text{iMood}_{\text{FACT}}||^c = \lambda p\,.\,\lambda w : \text{Dox}_{\text{speaker}}(w) \subseteq p\,.\,p(w)$ FACTIVITY

"The speaker presupposes *p* to be true."

In addition to interpretable mood in *Mood*, I assume that mood information must also be represented in C by virtue of an uninterpretable [uMood] feature in C. I argue that the choice of overt material in C is co-determined by whether C (and Mood) has the EPP property or not. If C has the EPP property and Mood does not, (116b), Mood undergoes head movement to C without 'pied piping' (in an informal sense) the T head; I argue that [C+Mood] is spelled out as *wenn* 'if', (117b). Alternatively, if both C and Mood have the EPP property, (116c), we see (V-to-)T-to-Mood-to-C movement, i.e. V1, (117c). If C lacks the EPP property, (116a), C is spelled out as *dass* 'that', which is its default spell-out, (117a). The complete proposal is summarized in (116)+(117).

(116) a. $C_{[\text{uMood}, \textbf{-EPP}]} \ldots \text{Mood}_{[\text{iMood}, \text{uT}, \textbf{+EPP}]} \ldots T_{[\text{iT}]}$
$\Rightarrow C_{[\sout{\text{uMood}}]} \ldots T_{[\text{iT}]} + \text{Mood}_{[\text{iMood}, \sout{\text{uT}}]} \ldots \langle T_{[\text{iT}]} \rangle$

*spell-out:* $C_{[\sout{\text{uMood}}]} \Leftrightarrow$ *dass* 'that'

b. $C_{[\text{uMood}, \textbf{+EPP}]} \ldots \text{Mood}_{[\text{iMood}, \text{uT}, \textbf{-EPP}]} \ldots T_{[\text{iT}]}$
$\Rightarrow \text{Mood}_{[\text{iMood}, \sout{\text{uT}}]} + C_{[\sout{\text{uMood}}]} \ldots \langle \text{Mood}_{[\text{iMood}, \text{uT}]} \rangle \ldots T_{[\text{iT}]}$

*spell-out:* $\text{Mood}_{[\text{iMood}, \sout{\text{uT}}]} + C_{[\sout{\text{uMood}}]} \Leftrightarrow$ *wenn* 'if'

c. $C_{[\text{uMood}, \textbf{+EPP}]} \ldots \text{Mood}_{[\text{iMood}, \text{uT}, \textbf{+EPP}]} \ldots T_{[\text{iT}]}$
$\Rightarrow C_{[\text{uMood}, \textbf{+EPP}]} \ldots T_{[\text{iT}]} + \text{Mood}_{[\text{iMood}, \sout{\text{uT}}]} \ldots \langle T_{[\text{iT}]} \rangle$
$\Rightarrow [T_{[\text{iT}]} + \text{Mood}_{[\text{iMood}, \sout{\text{uT}}]}] + C_{[\sout{\text{uMood}}]} \ldots \langle T_{[\text{iT}]} + \text{Mood}_{[\text{iMood}, \sout{\text{uT}}]} \rangle \ldots \langle T_{[\text{iT}]} \rangle$

*spell-out:* $[T_{[\text{iT}]} + \text{Mood}_{[\text{iMood}, \sout{\text{uT}}]}] + C_{[\sout{\text{uMood}}]} \Leftrightarrow$ V1

(117) a. *dass* 'that' spells out C on its own.

b. *wenn* 'if' spells out [C [Mood]].

c. *V1* spells out [C [ T [Mood]]].

In its base position, *Mood* codetermines the morphological mood marking on the verb; notably, it does not fully determine them, as we find various 'sequence of mood' effects. For instance, in (118b), the V1-degree exclamative (*Boy, would he have scolded us!*) is just as factive as the V1-degree exclamative in (118a). This is shown in (118b-ii), as

compared to (118a-ii). Yet, the verb is subjunctive marked, due to the implicit conditionalization, which marks it as a statement on counterfactual worlds[46].

(118) a. **Hat** der vielleicht geschimpft!
did he maybe scold
'Boy, did he scold us!'

i. *expresses:* It is remarkable how much he scolded us.

ii. *presupposes:* **It is a fact** that he scolded us to a high degree.

b. Stell dir vor, er hätte uns gesehen. **Hätte** der vielleicht geschimpft!
imagine you PRT he had us seen had he maybe scolded
'Imagine that he'd seen us. Boy, would he have scolded us!'

i. *expresses:* It is remarkable how much he would have scolded us if he had seen us.

ii. *presupposes:* **It is a fact** that he would have scolded us to a high degree if he had seen us.

In sum, I argue that presuppositions on the truth or falsity of the modified proposition arise due to interpretable mood features, which have an overt reflex both in the locus of C and in their base position. In C, they co-determine which material overtly realizes the complementizer position. In their base position, mood features co-determine mood marking on the verb (i.e. subjunctive or indicative). For languages like German and Dutch, the view that overt material in C is a realization of *C*, *C+Mood* or *C+Mood+T* derives the complementarity of 'complementizers' and V-to-C movement, originally observed by den Besten (1983).

## 3.3 Summary and Road Map

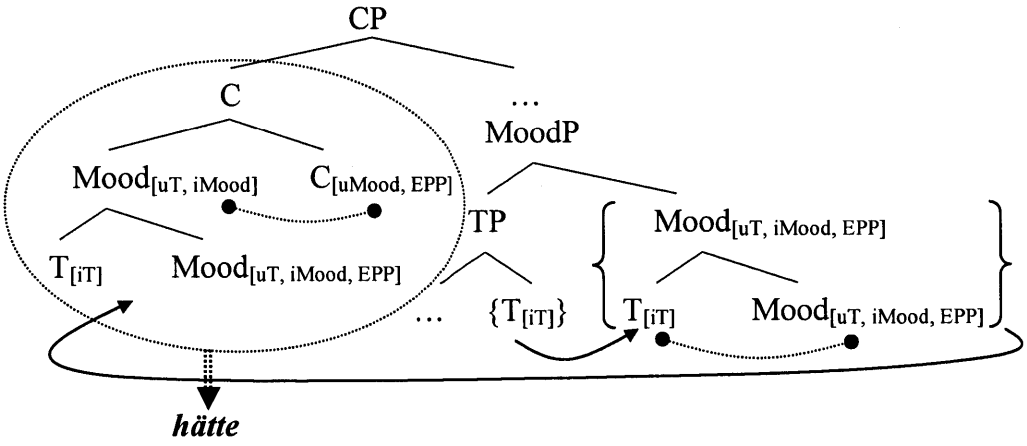
I have presented my system for optative constructions, first focusing on the big picture in section 3.1, then laying out the details in section 3.2. The idea is that we need three core

[46] Precisely, what (118b-ii) seems to presuppose is that there are counterfactual worlds such that it is a fact from the perspective of the actual world that in these counterfactual worlds he (a salient individual) would have scolded us very much.

ingredients to derive the meaning and specific properties of the utterance in (119a), which contains the proposition (119c) and involves the mood realization configuration in (119b). The ingredients are (i.) a silent exclamation operator *EX*, (ii.) semantic mood features, and (iii.) a presuppositional account for particles such as *nur* 'only'.

(119) a. **Hätte** es nur geregnet $t_{hätte}$!
had it only rained
'Had it only rained!'

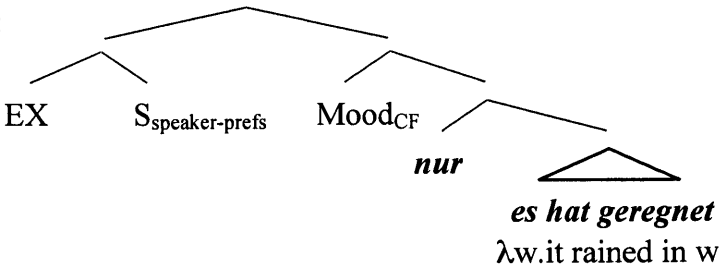
b. *Derivation of the V1 spell-out*




c. *denoted proposition:* λw.it rained in w

The LF for (119a) is given in (120a), and (120b-d) summarize the core ingredients.

(120) a. LF:




b. *felicity conditions:*
$EX(S_{speaker\text{-}preferences})$(**rain**) is felicitous iff
$\forall q[\text{THRESHOLD}(c) >_{speaker\text{-}preferences} q \rightarrow$ **rain** $>_{speaker\text{-}preferences} q]$
"The speaker expresses the emotion that [it rained] is above a salient threshold on the speaker's preference scale / desirability scale."

c. *mood information:*
   $Mood_{CF}$ triggers the presupposition that
   $\{w : \text{it rained in } w\} \cap Dox_{speaker}(w) = \varnothing$
   "The speaker presupposes that it is false that [it rained]"

d. *particle contribution:*
   *nur* triggers the presupposition that
   MOST $q \in g(C)$ $[q >_{speaker\text{-}preferences}$ rain]
   *where* C is a contextually provided set of proposition
   "The speaker presupposes that [it rained] is relatively low on the speaker's preference scale; in other words, asking for rain is not much to ask."

The core of this dissertation consists of detailed argumentation for each of these three points, and an exploration of the consequences (where applicable). I first focus on the nature of *EX*, its motivations, and its consequences, in chapter 4. I then proceed to a discussion of *iMood* features and mood agreement between C and Mood, in chapter 5. Finally, I present a detailed investigation of three prototypically optative particles, *nur* 'only', *wenigstens* 'at least' and *doch*, in chapter 6. Each chapter is self-contained, presenting the respective analysis, its motivation and the implications of such an approach.

## 4. The Source of Desirability in Optatives

This chapter introduces the basic ingredient of my analysis of optative utterances (Scholz 1991, Rosengren 1993, Rifkin 2000, Asarina & Shklovsky 2008, Kyriakaki 2007, 2008, 2009, Biezma 2011a), as in (121b), and polar exclamative utterances (Thurmair 1989, Scholz 1991, Rosengren 1992, Truckenbrodt 2006a, Delsing 2010), as in (121c).

(121) a. Mensch! Dass der heute nicht verschlafen hat!
man that he today not overslept has
*lit.* 'Man! That he didn't oversleep today!'

b. *optative reading:* [I hope] that he didn't oversleep today!

c. *exclamative reading:* [I'm shocked] that he didn't oversleep today!

I propose that such utterances involve a covert operator *EX*, (122), which has the following properties. First, *EX* is a scalar operator, conveying that the modified proposition exceeds a salient threshold on a contextually salient scale, provided by a scalar argument *S* (the scale represents *speaker preferences* in the case of optatives, *(prior) speaker unlikelihood* in the case of polar exclamatives). Second, *EX* is an expressive element that shifts descriptive content into the domain of expressive content, in the sense of Potts & Roeper (2006).

(122) a. Dass der heute nicht verschlafen hat!
that he today not overslept has
*lit.* 'That he didn't oversleep today!'

b. LF: [[EX S] [that he didn't oversleep today]]!

I consider Kyriakaki (2007, 2008, 2009) a predecessor of my proposal, as she assumes that Greek counterfactual wishes like (123a) involve a covert operator with (roughly) a *wish*-reading that is 'exclamative' (and thus unembeddable) in nature; the LF for (123a) can be schematically given as in (123b) (my strongly simplified rendering), and *makári* is a plausible lexicalization of the *wish*-operator, according to Kyriakaki.

(123) a. (Makári) na ímun plúsios!
makari na be.imp.1s rich
'If only / I wish I were rich!'

(Kyriakaki 2007:41+48)

b. LF: [WISH [I am rich]]!

My analysis departs from Kyriakaki's analysis in several important respects. First, I propose a generalized variant of this exclamation operator, which covers both optatives and polar exclamatives. Second, I argue that the exclamation operator (my *EX*) is an expressive operator, which maps truth-functional descriptive content into use-conditional expressive content (in the spirit of Potts & Roeper 2006). Third, I propose to treat *EX* as an inherently scalar element that combines with a scalar argument *S*, which opens the possibility of investigating interactions between *EX* and other scalar particles (specifically: *only* and *at least*). Fourth, I dissociate the counterfactuality presupposition of counterfactual optatives from their expression of desirability (a possibility that Kyriakaki 2007 points out in footnote 33). And finally, I present a variety of new arguments in favor of *EX*.

An alternative view to Kyriakaki's and my proposal is presented in Biezma (2011ab). Biezma, focusing on *if*-optatives (as opposed to *that*-optatives), assumes that there is no covert operator in optatives, and argues that desirability arises from an interaction between the compositional meaning of a conditional antecedent and the pragmatics of discourse. I review Biezma's proposal in section 4.2.

In section 4.1 I present my own system of deriving desirability in optatives by way of the generalized *EX* operator. The structure of this chapter is as follows. I will first briefly revisit the puzzle in section 4.1.1 and summarize the core proposal in section 4.1.2. Section 4.1.3 argues that optative clauses share properties with argument clauses, whereas section 4.1.4 argues against a matrix clause deletion approach. This gives rise to an apparent dilemma, which is resolved by positing a covert exclamation operator *EX* that serves to express an emotion towards a particular proposition, 4.1.5. I proceed by arguing that *EX* is an expressive operator (i.e. it combines with truth-functional descriptive content and maps it onto expressive content), in section 4.1.6, and that *EX* is a scalar

operator, in section 4.1.7. After a brief discussion of the interactions between *EX* and overt interjections, in section 4.1.8, I formalize *EX* in 4.1.9. Finally, I discuss cross-linguistic variation with respect to *EX* in section 4.1.10. Section 4.2 reviews Biezma's (2011ab) analysis of optatives, which does not assume covert operators.

## 4.1 On Expressing Emotion, the EX Operator and Generalized Exclamations

### 4.1.1 Revisiting the Core Puzzle: Attitudes without Attitude Predicates

The core question to be addressed in this section is how to account for the expressive meaning conveyed by utterances such as optatives and polar exclamatives. Specifically: How does the wish or surprise arise that is conveyed? The empirical focus will be on optative constructions as in (124) and (125). The core puzzle can be stated as follows: How is the meaning that is captured by the paraphrases in (124d) and (125c) compositionally derived?

(124) *subjunctive (and counterfactual) optatives*

a. **Daß** er (doch) nur rechtzeitig gekommen **wäre!**
that he doch only in.time come were

b. **Wenn** er (doch) nur rechtzeitig gekommen **wäre!**
if he doch only in.time come were

c. **Wäre** er (doch) nur rechtzeitig gekommen $t_{wäre}$!
were he doch only in.time come
'If only he had come in time!'

d. *paraphrase*: I wish he had come in time!

(125) *indicative optatives*

a. **Daß** er nur (JA) rechtzeitig **kommt!**
that he only JA in.time comes

b. **Wenn** er nur (JA) rechtzeitig **kommt!**
if he only JA in.time comes
'If only he comes in time!'

c. *paraphrase*: I hope he will come in time!

To slightly extend the empirical scope, the assumption can be made that an empirically adequate proposal will also cover polar exclamatives, (126) and (127) below. This assumption is justified as the two utterance types share many properties. First, both optatives and polar exclamatives are orientated towards a fact rather than a degree (setting them apart from the types of exclamations that so far received most attention, namely degree exclamatives). Second, both optatives and polar exclamatives involve emotivity, i.e. they seem to express an emotion rather than describe it (Rosengren 1992, 1993). Third, both optatives and polar exclamatives seem to be exclamations (for optatives: Quirk et al. 1972, 1985, Rifkin 2000, Kyriakaki 2007, 2008, 2009). Fourth, both optatives and polar exclamatives involve *insubordination*, i.e. they typically take the form of unembedded clauses with the morphosyntax of embedded clauses (cf. Truckenbrodt 2006a, Reis 2006). Fifth, both optatives and polar exclamatives have a V1 variant (see chapter 2). These parallels motivate a heuristic approach of aiming for a uniform analysis; alternatively, by pursuing a uniform analysis, we may discover that we need to generalize to the worst case (i.e. that polar exclamatives and optatives require fundamentally different analyses) – I will argue that a uniform analysis is possible.

The puzzle that polar exclamatives pose is analogous to the optative puzzle: How are the intuitive paraphrases in (126c) and (127c) compositionally derived?

(126) *indicative polar exclamatives*

a. **Daß** Sie (doch / tatsächlich / wirklich) daran gedacht **haben!**
that you doch indeed really of.it thought have

b. **Haben** Sie doch (tatsächlich / wirklich) daran gedacht **$t_{haben}$!**
have you doch indeed really of.it thought
'Jesus, that you really remembered it!'
(Scholz 1991:133, who attributes the *dass*-variant to Wilhelm Oppenrieder)

c. *paraphrase*: It is remarkable that you remembered it.

(127) *subjunctive (yet factive) polar exclamatives*

a. **Daß** die dem doch tatsächlich das Buch gegeben **hätte!**
that she him doch indeed the book given had

b. **Hätte** die dem doch tatsächlich das Buch gegeben $t_{hätte}$!
had she him doch indeed the book given
'Jesus, that she would have indeed given him the book!'
(based on Scholz 1991:132-133)

c. *paraphrase*: It is remarkable that she would have given him the book.

The following section summarizes the core proposal; I will then proceed to motivating different aspects of that proposal and to exploring its consequences, in sections 4.1.3 to 4.1.10.

### 4.1.2 Core Proposal

I argue for the following proposal. Optatives contain a scalar, expressive operator *EX*[47]. By *scalar*, I mean that *EX* directly operates on scales (e.g. reflecting the speaker's preferences or expectations). By *expressive*, I mean that *EX* yields a semantic that is non-truth-conditional but rather felicity-conditional (cf. Kratzer 1999, Kratzer & Matthewson 2009 for the use of *felicity conditions* in this context). *EX* serves to express an emotion of the speaker with respect to the denoted proposition being high on a salient scale (in optatives: speaker preferences); the formalism is loosely based on Villalta (2007)[48].

For current purposes, assume the following notion of scale, in (128a+b). Here, scales are defined as orderings over propositions. The given definition now allows us to model sample scales such as in (129a+b).

(128) *definition of scale (preliminary)*

a. A scale $S$ is defined as a set of ordered pairs of propositions ($S \subseteq \wp(W) \times \wp(W)$), which are ordered by an ordering relation $R$, such that for every pair of propositions <a,b> in $S$, the relation $R(<a,b>)$ holds.

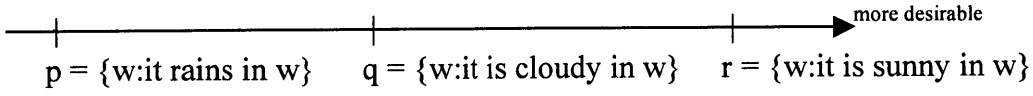
b. For any scale $S$ and corresponding ordering relation $R$, I use $p >_S q$ to mean 'p is strictly higher than q on S', i.e. $R(<p,q>) \wedge \neg R(<q,p>)$.
(cf. Klinedinst 2005)

---

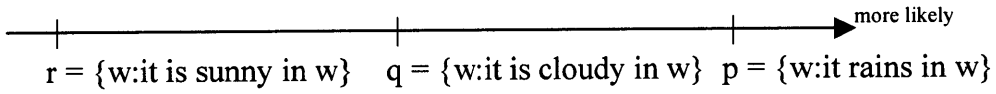
[47] *EX* is inspired by Gutiérrez Rexach's (1996) *EXC* operator, though its semantics differs fundamentally.
[48] I argue below that optatives are expressive utterances, cf. Potts & Roeper (2006); I propose that expressive utterances are non-truthconditional and have felicity conditions instead, see also Kratzer (1999), Kratzer & Matthewson (2009).

Imagine the speaker prefers a cloudy day over a rainy day, but at the same time prefers a sunny day over a cloudy day; these preferences give rise to the scale in (129a). Similarly, if it has been raining for two days and the weather forecast indicates that it will rain for another two days, a rainy day is more likely than a cloudy day, which is more likely than a sunny day. This gives rise to the likelihood scale in (129b). Similarly, an inverse preference scale (or *dispreference scale*) would look like (129a) with inverted polarity, and an inverse likelihood scale (or *unlikelihood scale*) would look like (129b) inverted.

(129)a. *sample preference scale*




b. *sample likelihood scale*




Having introduced a formal notion of scale, we can now give a first approximation of *EX* in (130); what (130) implements is the idea that there is at least one possible alternative *q* to the denoted alternative *p*, which is lower on the relevant scale than *p*.

(130) *First approximation of EX (to be revised)*

For any scale *S* and proposition *p*, interpreted in relation to a context *c* and assignment function *g*,

an utterance of $EX_C(S)(p)$ is felicitous iff $\exists q[[q \neq p \ \& \ q \in g(C)] \ \& \ p >_S q]$

"EX expresses an emotion that captures the fact that *p* is higher on a (speaker-related) scale *S* than some contextually relevant alternatives *q*"

*where* C is a contextually determined variable of type <st,t> (a set of propositions), which receives its value from *g*.

An illustration of this meaning is given in (131).

(131)a. Ach, wäre ich wohlhabend!
oh were I wealthy
'If only I were wealthy!' (*lit.* 'Oh, were I wealthy!')

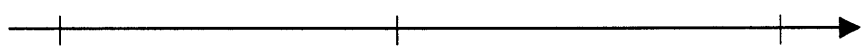
b. LF: $[[EX_C \ S_{\text{speaker-preferences}}]$ [I am wealthy]]!

c. *felicity conditions:*

(131a) is felicitous iff $\exists q[[q \neq \text{wealthy(speaker)} \;\&\; q \in g(C)] \;\&\; \text{wealthy(speaker)} >_{\text{speaker-preference}} q]$

"The speaker expresses the emotion that [$_p$ the speaker is wealthy] is higher on a speaker-related preference scale than some contextually relevant alternative *q*."

In a context where there are no salient alternatives, it is natural to assume that the salient *q* is simply the negation of the denoted proposition. In such a context, the speaker of (131a) would simply convey that worlds in which the speaker is wealthy are better than worlds in which the speaker isn't wealthy. However, my analysis presently also predicts that (131a) should be well-formed if my actual preferences are given as in (132). As we will see, this is crucially the case.

(132) 


p = {w:I am poor in w} q = {w:I am wealthy in w} r = {w:I am rich in w}

At this point, two qualifications are in place, which I address in turn. First, we need to refine the notion of scale that we use in order to derive the right results. Second, we need to find a way to make *EX* sensitive to scalar thresholds.

The first issue that arises concerns the implausibility of it being the case that the scales that we are dealing with rank propositions directly. As it stands, we seem to predict that (133a) entails (133b), which, as indicated, does not reflect our intuitions. The false entailment is due to the subset relations in (134). Assume that I, as the speaker, prefer the set of worlds in which I am wealthy over the set of worlds in which I am poor, as sketched in (133a). It then seems to follow that I prefer worlds in which I am dead and wealthy over worlds in which I am alive and poor, sketched in (133b). This is clearly pathological. We thus have to conclude that we are not directly ranking (entire) sets of worlds with respect to their relative desirability.

(133)a. {w:I am wealthy in w} $>_{\text{speaker-preference}}$ {w:I am poor in w}

b. $\not\Rightarrow$ {w:I am wealthy and dead in w} $>_{\text{speaker-preference}}$ {w:I am poor and alive in w}

(134) a. {w:I am wealthy and dead in w} $\subseteq$ {w: I am wealthy in w}

b. {w:I am poor and alive in w} $\subseteq$ {w: I am poor in w}

Heim (1992) solves this problem by assuming a conditional semantics for predicates such as *want*, *wish* and *be glad.* The *p*-worlds that are closest to the evaluation world *w* are more preferable than the $\neg p$-worlds that are closest to the evaluation world *w*. In other words, *p* is more preferable than $\neg p$, all else being equal. I adopt the alternative view from Villalta (2007) that scales actually rank worlds, (135b), and propositions are only ranked by proxy, using Kratzer's (1991) *better possibility*, (135c).

(135) *definition of scale (final)*

a. A scale *S* is defined as a set of ordered pairs of worlds ($S \subseteq W \times W$), which are ordered by an ordering relation *R*, such that for every pair of worlds $\langle w_7, w_3 \rangle$ in *S*, the relation $R(\langle w_7, w_3 \rangle)$ holds.

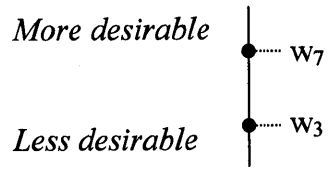
b. For any scale *S* and corresponding ordering relation *R*, I use $w_7 >_S w_3$ to mean '$w_7$ is strictly higher than $w_3$ on S', i.e. $R(\langle w_7, w_3 \rangle) \wedge \neg R(\langle w_3, w_7 \rangle)$.

c. For any proposition *p* and *q*, $p >_S q$ iff $\forall w_3 \in q\ \exists w_7 \in p$ such that $w_7 >_S w_3$, and it is not the case that $\forall w_7 \in p\ \exists w_3 \in q$ such that $w_3 >_S w_7$.

(adapted from Villalta 2007:106, using concepts from Klinedinst 2005)

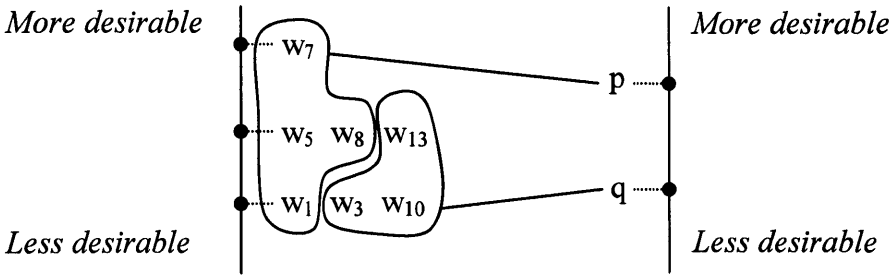
The idea here is that orderings of worlds always establish a scale. To exemplify, take two worlds, $w_3$ and $w_7$, identical except for the fact that in $w_7$ I am rich and in $w_3$ I am not rich. If I intend to be rich, $w_7$ will be higher on my preference scale than $w_3$, as in (136).

(136)




By means of Kratzer's (1991) *better possibility*, we can now rank propositions with respect to such a scale. If there is a p-world that is ranked higher than all q-worlds, p can be said to be ranked higher on the scale than q, cf. (135b); this is illustrated in (137).

(137)




The second issue with (130) concerns the fact that our entry for *EX* is too weak as it stands. Existential quantification over contextually relevant alternative propositions does not capture our intuition that the desirability of the denoted proposition in an optative must be above some salient threshold. For now, it suffices to assume that the choice of relevant alternatives by means of the contextual variable *C* achieves this purpose. The worry is that such a move assigns a rather powerful role to *C*, and we are losing explanatory power to the 'black box' that is contextual information. How can we remedy this issue? On the one hand, if we follow Villalta (2007) in assuming that *C* must be a subset of the focus alternatives of the modified proposition, this limits the range of possible alternatives in the interpretation of optatives. Moreover, it has been observed that optatives often involve verum focus (cf. Scholz 1991, Rosengren 1993), which will typically limit the relevant alternatives to the expressed proposition and its negation. On the other hand, it seems justified to write 'threshold sensitivity' directly into the meaning of *EX* (in the same sense in which gradable predicates are usually sensitive to some contextual standard). This allows us to dispense with a contextual set of alternatives *C*. I thus propose the revised lexical entry for *EX* in (138).

(138) *Lexical entry for EX (final)*

For any scale *S* and proposition *p*, interpreted in relation to a context *c* and assignment function *g*,

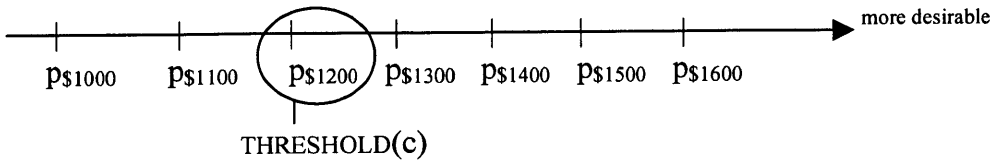
an utterance EX(S)(p) is felicitous iff $\forall q[\text{THRESHOLD}(c) >_S q \rightarrow p >_S q]$

"EX expresses an emotion that captures the fact that *p* is higher on a (speaker-related) scale *S* than all contextually relevant alternatives *q* below a contextual threshold."

*where* THRESHOLD(c) is a function from a context into a set of worlds / a proposition that counts as high with respect to a relevant scale *S*.

Assume that in order to be in a tolerable world, I need to earn at least $1200 per month. In a context in which this is the case, THRESHOLD(c) may yield {w : I earn $1200 per month in w}. Such a situation is described in (139) (where $p_n$ abbreviates $p$ = {w : I earn $n$ per month in w}).

(139)




I will come back to a discussion of the formal implementation in some more detail in section 4.1.9; first, I focus on how to motivate the overall proposal.

To summarize in brief, my proposal rests on the following sub-proposals, which I will argue for one by one. First, while optative clauses quite generally behave like complement clauses (section 4.1.3), they do not contain an elided matrix clause (section 4.1.4), which argues against Evans (2007) (and other rendering of a *matrix clause deletion approach*). I propose that we can best account for the observations in 4.1.3 and 4.1.4, by assuming a covert operator *EX*, which takes the optative clause as its complement but does not have the status of a covert matrix clause, as illustrated in (140).

(140) [*EX* [$_{CP}$ **Daß / Wenn** er doch nur rechtzeitig gekommen **wäre**!]]
that if he doch only in.time come were
'If only he had come in time!'

As summarized in (141), I make the following further assumptions. First, *EX* is emotive and can be generalized to polar exclamatives ((141i) and section 4.1.5); *EX* is not part of the descriptive at-issue content, but expressive in nature ((141ii) and section 4.1.6); *EX* is scalar ((141iii) and section 4.1.7); and while *EX* interacts with overt interjections, these interjections do not express *EX* ((141iv) and section 4.1.8). I then discuss some more formal issues in section 4.1.9 and discuss cross-linguistic and language-internal variance with respect to *EX* in section 4.1.10.

(141) An utterance of *EX(φ)* conveys:

i. the speaker at the point of utterance has an emotion $\varepsilon$ (or at least an evaluative attitude $\varepsilon$) towards $\varphi$[49].

ii. the speaker intends to *express* $\varepsilon$, rather than *describe* $\varepsilon$.

iii. $\varepsilon$ involves a scale (in the case of optatives: a preference scale)

iv. *EX* combines with interjections (*oh!*, *man!*, ...) to further refine the expression of $\varepsilon$, but these interjections do not express *EX*

Topics that I discuss in subsequent chapters include the connection between *EX* and semantic mood (e.g. counterfactuality, factivity), which I discuss in chapter 5, as well as the role of prototypical particles in *EX*-utterances, which I discuss in chapter 6.

### 4.1.3 Optative clauses behave like complement clauses

The purpose of this section is to motivate the idea that optatives behave like complement clauses, even in their *if*-clause variant. The selectional relation between an operator (which I will argue to be *EX*) and its optative complement is schematically given in (142).

(142) *Sub-Claim 1: Optatives are selected by an operator*

... Op ... [$_{CP}$ **Daß / Wenn** er doch nur rechtzeitig gekommen **wäre**!]
that if he doch only in.time come were
'If only he had come in time!'

The idea that *daß*-clauses (i.e. *that*-clauses) are complements may be obvious, whereas the idea that *wenn*-clauses (i.e. *if*-clauses) can be complements seems much more controversial. To argue for such a claim, let me briefly review the typology of *if*-clauses. In the literature on conditionals, it is commonly assumed that there are various different

[49] Note that the emotivity of *EX* is not explicitly encoded in the lexical entry in (138). Rather than ascribing it to the lexical meaning of *EX*, I assume that emotivity is simply a property of (certain or even all) expressive elements. (See also Potts & Roeper (2006) on the range of possible expressive small clauses, which appear to involve some emotive component as well.)

types of conditional constructions, including *hypothetical conditionals*, (143), *relevance conditionals*, (144), and *factual conditionals*, (145), cf. Iatridou (1991), Bhatt & Pancheva (2006). The differences between them can be described informally as follows. First, in the hypothetical conditional, (143), the *if*-clause specifies the circumstances under which the consequent is true, all else being equal.

(143) *hypothetical / event conditional* (e.g. Iatridou 1991, Haegeman 2003)
[**If** the water drops below this line,] the heating will stop working.

Second, in the relevance conditional, (144), the *if*-clause specifies the circumstances under which the truth of the consequent is relevant.

(144) *relevance / biscuit conditional* (e.g. Austin 1956, Iatridou 1991)
[**If** you really want to know,] I didn't go to school today.

Third, the distinguishing property of the factual conditional, (145), is that it presupposes that somebody (in English, typically: someone other than the speaker) believes in the truth of the antecedent proposition.

(145) *factual / premise conditional* (e.g. Iatridou 1991, Haegeman 2003)
A: I'm really tired.
B: [**If** you're so tired,] you should go to sleep.

Another type of *if*-clause that we find in English is the interrogative *if*-clause (cf. Kayne 1991 and Bhatt & Pancheva 2006 for a discussion).

(146) *interrogative if-clauses* (e.g. Kayne 1991, Bhatt & Pancheva 2006)
I wonder [**if** the Duke sleeps in this bed].

Finally, it has been proposed that there is a further category, so-called *non-logical if*-clauses, (147). This is the category I will be focusing on. While not addressed by Iatridou (1991) or Bhatt & Pancheva (2006), these have been discussed in Carstairs (1973), Williams (1974), Fabricius-Hansen (1980), Steriade (1981), Pullum (1987), Schmid (1987), Pesetsky (1991), Rothstein (1995), Leonarduzzi (2004), Jugnet (2008) and Rau (2008). Non-logical *if*-clauses differ from (logical) hypothetical conditionals as follows. While they do have a 'logical' reading, illustrated in (147b), they have an additional 'non-logical' reading, illustrated in (147c) (though we will see that there are concerns with the paraphrase in (147c)). This non-logical reading entails that in (147a+c) the speaker would be happy about Bill being here, i.e. the antecedent proposition is *subject matter* of the speaker's happiness. The logical reading of (147a), in (147b), does not entail that the speaker would be happy *about* Bill being here; (147b) is compatible with a scenario where the speaker hates for Bill to be here, but at the same time profits from Bill being here in some indirect way.

(147) *non-logical if-clauses, complement if-clauses* (e.g. Williams 1974, Pesetsky 1991)

a. I would be happy [**if** Bill was/were here].

b. *logical reading:* If Bill were here, I would be happy as a consequence.

c. *non-logical reading:* I would be happy that Bill was here, if he were.

(adapted from Williams 1974:157, Pesetsky 1991:60)

The obvious question to be asked is which of the constructions in (143)-(147) is most similar to an *if*-optative. Three options can be discarded straightforwardly. First, *if*-optatives cannot be interrogative *if*-clauses. This follows from the fact that cross-linguistically languages that obligatorily differentiate between interrogative *if* (i.e. *whether*) and conditional *if* require the latter in optatives. This is illustrated for German in (148) and (149).

(148) a. Ich frage mich, **ob** / * **wenn** er kommt. *German*
I ask myself whether if he comes
'I wonder **if** he's going to come.'

b. Ich frage mich, **ob / * wenn** er gekommen wäre.
I ask myself whether if he come were
'I wonder **if** he would have come.'

(149)a. **Wenn / * ob** er nur kommt! *German*
if whether he only comes
'**If** only he comes!'

b. **Wenn / * ob** er nur gekommen wäre!
if whether he only come were
'**If** only he had come!'

Similarly, *if*-optatives cannot be assimilated to factual conditionals or relevance conditionals. Consider first example (150). The factual conditional in (150a) presupposes that there is evidence that it was already four o'clock when John left. Clearly, an optative like (150b) does not presuppose that anyone believes in the truth of the proposition expressed in the *if*-clause.

(150)a. **If** it was already four o'clock when he left, John will never make it.
(Haegeman 2003:322)

b. **If** only John had left at three o'clock!

Consider now the relevance conditional in (151a); informally speaking, the *if*-clause 'if you need anything' imposes a restriction on the speech act performed by the matrix clause – the speaker's introducing herself as *Jill* is only relevant in circumstances where the hearer needs something. Again, this is not how optatives work; in (151b), the *if*-optative does not impose restrictions on some (covert / implied) speech act[50].

(151)a. **If** you need anything, I'm Jill.
(Franke 2007)

b. **If** only he had needed something/?*anything!

[50] As indicated, optatives also differ from relevance conditionals (and other conditionals) with respect to their licensing of polarity items. I will come back to this observation soon.

We can conclude that optatives are not *if*-interrogatives, factual conditionals or relevance conditionals.

The remaining two candidates are much less easily evaluated. I argue that optatives are more like non-logical conditionals than like logical conditionals[51]. As such, they behave like complement clauses, expressing a subject matter of desire. Consider first the sample *if*-optative in (152).

(152) Oh, **if** I had only not come to Petershof!
(Beatrice Harraden. 1893. Ships That Pass In The Night.)[52]

Assuming that (152) expresses a simple wish or positive evaluation, we can paraphrase it both in terms of a *logical hypothetical conditional*, as in (153), and by means of a *non-logical if-clause*, as in (154). (These are merely examples of what (152) could mean; I do not attribute any explanatory power to the choice of paraphrase; (154) might just as well be construed as *It would be preferable / better / great / wonderful ...*)

(153) *sample logical paraphrase of (152)*
[**If** I had not come to Petershof,] everything would be fine.

(154) *sample non-logical paraphrase of (152) (based on Williams 1974, Pesetsky 1991)*
It would be good [**if** I had not come to Petershof].
≡ It would be good [**that** I didn't come to Petershof], **if** I hadn't.

Another, more concise, example of the two possible interpretations is given in (155).

(155) a. **If only** I were rich!
b. *logical analysis:* If I were rich, all would be well as a consequence.
c. *non-logical analysis:* If I were rich, it would be a good thing that I am rich.

---

[51] The idea to analyze optatives as non-logical conditionals was inspired by a paraphrase (*it would be nice if ...*) that David Stifter (p.c.) volunteered for an optative construction in German.
[52] http://www.gutenberg.org/files/12476/12476-8.txt

To show that optatives are more appropriately paraphrased as in (155b) (and not as in (155a)), we can now turn to diagnostics from the literature. The discussion in the following sections is based on correlations in the behavior of *if*-optatives and different *if*-clauses. I assume the heuristic view that correlations in behavior may reflect parallel underlying structures.

#### 4.1.3.1 On Polarity in Optatives

In this chapter, I show that negative polarity items are dispreferred in both non-logical *if*-clauses that express a positive evaluation and in *if*-optatives. Consider first the case of non-logical *if*-clauses. Pullum (1987) credits Karina Wilkinson for the observation in (156); while logical *if*-clauses allow for *Negative Polarity Items* (and *Free Choice Items*, cf. Horn 1972, Ladusaw 1979, Carlson 1981), non-logical *if*-clauses disallow them.

(156) a. That panel drops down [if **anyone** pulls this lever]. *logical if-clause*
b.# It would be preferable [if **anyone** pulled this lever]. *non-logical if-clause*
(Pullum 1987)

Pesetsky (1991) corroborates this observation with further examples, pointing out an asymmetry between right-peripheral and left-peripheral *if*-clauses. Only the right peripheral ones disallow NPIs, (157)-(159). I will not be concerned with this asymmetry, as my main interested is in possible parallels between (157a), (158a) and (159a) and optatives.

(157) a.* I would like it [**if anyone** were to ask me about the painting].
b. [**If anyone** were to ask me about the painting], I would like it.
(Pesetsky 1991:61)

(158) a.* I will love it [**if** John **ever** looks at his books again].
b. [**If** John **ever** looks at his books again], I will love it.
(Pesetsky 1991:61)

(159) a.* I would appreciate it [**if** Sue were to **budge an inch**].

b. [**If** Sue were to **budge an inch**], I would appreciate it.
(Pesetsky 1991:61)

Two other caveats that Pesetsky introduces can be stated as follows. The anti-NPI-licensing effect of non-logical *if*-clauses is dependent on the *it* in the matrix clause not being coreferent with some contextually given entity, as shown in (160). This is presumably due to the fact that (160) is understood as a garden-variety logical conditional. When exploring judgments and intuitions, this confound should always be controlled for.

(160) Q: How do you like the **response**$_i$ to your painting?

A: I would like **it**$_i$ better [**if anyone** were to ask me about the painting].
(Pesetsky 1991:61)

Pesetsky also points out that non-logical *if*-clauses merely fail to license NPIs. They do not block NPI licensing by a higher negative element, as shown in (161).

(161) a. I would **not** like it [if **anyone** were to ask me about the painting].

b. I would **hate** it [if **anyone** were to ask me about the painting].
(Pesetsky 1991:61)

The core observation in this section is that optatives behave like right-peripheral non-logical *if*-clauses. The observation that optatives do not allow for Negative Polarity Items is due to Gärtner (2010). Gärtner does not discuss non-logical *if*-clauses or draw the parallels that I am drawing. Relevant examples are given for German in (162). As shown in (162a), logical *if*-clauses allow for an NPI such as *je* 'ever', whereas non-logical *if*-clauses disallow *je* 'ever', (162b). The crucial observation is that optatives, (162c+d), pattern like non-logical *if*-clauses and unlike logical *if*-clauses. Naturally, in optatives that contain particles such as *doch* and *nur* 'only', the particles may conceivably act as interveners, blocking certain NPIs, such as *je(mals)* 'ever'. To control for this, I include example (162d), without clause-medial particles.

(162) a. *logical if clause*

Wir hätten gefeiert, [ wenn die Red Sox **je(mals)** gewonnen hätten].
we had celebrated if the Red Sox ever won had
'We would have celebrated [if the Red Sox had **ever** won].'

b. *non-logical if clause*

Es wäre besser, [ wenn die Red Sox (?***je / *jemals**) gewonnen hätten].
it were better if the Red Sox ever ever won had
'It would be better [if the Red Sox had (?***ever**) won].'

c. *independent if-optative with particles*

Wenn die Red Sox doch nur (?***je / *jemals**) gewonnen hätten!
if the Red Sox DOCH only ever ever won had
'[If only the Red Sox had (?***ever**) won]!'

d. *independent if-optative without particles*

Ach, wenn die Red Sox (??**je / ?*jemals**) gewonnen hätten!
oh if the Red Sox ever ever won had
'[Oh, if the Red Sox had (?***ever**) won]!'

For English, the same contrast can be reproduced. The *if*-optative in (163c) disallows NPIs, like the non-logical *if*-clause in (163b) and unlike the logical *if*-clause in (163a). Strikingly, optative conditionals also pattern like independent *if*-optatives, cf. (163d), supporting a view where they consist of an *if*-optative followed by an implicitly conditionalized declarative clause, cf. section 2.1.2.

(163) *Context: For years, John was living in an old house, not knowing that there was a gremlin in the old decorative box in his room that didn't seem to open. John never tried to pry it open. One day the gremlin came out and ate John's cat.*

a. *logical if-clause*

If John had (**ever**) opened that box, he would have noticed the gremlin in it.

b. *non-logical if-clause*

It would have been good if John had (??**ever**) opened that box.

c. *independent if-optative*

If only John had (?***ever**) opened that box!

d. *optative conditional*

If only John had (?***ever**) opened that box, he would have noticed the gremlin in it.

Note that the degradation of (163b) is surprisingly less strong than that of (163c+d). This is presumably due to the fact that constructions with a non-logical *if*-clause always have a reading where the *if*-clause is understood as a logical *if*-clause (and the matrix *it* is forced to refer to something in the context). If this is the right way of interpreting the pattern, the observed correlation (NPIs are bad in optatives and in non-logical *if*-clauses) is evidence that optative *if*-clauses behave like non-logical *if* clauses rather than like logical *if* clauses, and they do so quite consistently.

Given that *only* is by and large obligatory in English *if*-optatives, we cannot exclude the possible confound that ill-formedness is due to intervention effects in (163c+d), as given schematically in (164). However, such an intervention analysis seems implausible, given that *only* itself typically acts as an NPI licensor, (165).

(164) NPI-licensor ... only$_{\text{(intervener)}}$ ... ever

(165) a. **Only** one person said **anything**.

b.# One person said **anything**.

Another example that shows the inability of optatives to license NPIs or free choice items (FCIs) is given in (166).

(166) a. If he had said **something/anything**, the machine would have recorded it.

b. If only he had said **something**/?***anything**!

The crucial patterns can thus be summarized as follows. While logical conditionals allow for NPIs and FCIs, optatives and non-logical *if*-clauses disallow them. The contrast between non-logical and logical *if*-clauses seems to be independent from positive evaluation, as we saw in the contrast between (167a) and (167b), which both involve positive evaluation.

(167) a. *non-logical if-clause (with non-referential "it")*

* I would like it [**if anyone** were to ask me about the painting].

(Pesetsky 1991:61)

b. *logical if-clause (with referential "it")*

Q: How do you like the **response**$_i$ to your painting?

A: I would like **it**$_i$ better [**if anyone** were to ask me about the painting].

(Pesetsky 1991:61)

This parallel between *if*-optatives and non-logical *if*-clauses may thus indicate some underlying parallels between the two constructions. The question that arises is why these two types of *if*-clauses ban NPIs and FCIs. It has been observed previously that embedded factive clauses allow for such elements when the embedding predicate expresses a negative evaluation, but not when it expresses a positive evaluation.

(168) a. I'm sorry [that I **ever** met him].

b.* I'm glad [that I **ever** met him].

(Linebarger 1987:328, brackets are mine)

If we assume that non-logical *if*-clauses involve complementation in the sense that the *if*-clause is at some level of representation a complement of the matrix predicate, Linebarger's judgments in (168) mirror Pesetsky's in (169).

(169) a. I would hate it [if **anyone** were to ask me about the painting].

b.* I would like it [if **anyone** were to ask me about the painting].

(Pesetsky 1991:61, brackets are mine)

If we assume that NPIs are licensed in the complement of negatively evaluative predicates but not in the complement of positively evaluative predicates, the parallel between (168) and (169) should follow from a theory in which non-logical *if*-clauses are *complement if-clauses*, (170), as well as from a Pesetsky-Williams style analysis where non-logical *if*-clauses undergo some copying process as in (171).

(170) a. I would **hate** it [if **anyone** were to ask me about the painting].
complementation

b.* I would **like** it [if **anyone** were to ask me about the painting].
complementation

(171) a. I would hate it [if **anyone** were to ask me about the painting].

⇒ I would hate (it) that **anyone** asks me about the painting if **anyone** were to ask me about the painting.

b.* I would like it [if **anyone** were to ask me about the painting].

⇒ I would like (it) that **anyone** asks me about the painting if **anyone** were to ask me about the painting.

Similarly, given that optatives appear to express a wish, we could treat optatives as non-logical *if*-clauses with a positively evaluative matrix predicate; this is illustrated in (172b+c), where I WOULD LIKE IT symbolizes the matrix operator that selects the denoted proposition as its complement. (172b) is the type of analysis that I am arguing for (see also Kyriakaki 2007, 2008, 2009), positing a generalized *EX* instead of I WOULD LIKE IT; an alternative understanding of (172b) would be that I WOULD LIKE IT is an elided matrix clause; I argue against such a view in section 4.1.4.

(172) a. If only John had (?***ever**) opened that box!

b. *complementation analysis (sketch):*

I WOULD LIKE IT [if only John had (?***ever**) opened that box]!

c. *Pesetsky-Williams style analysis (sketch):*

I WOULD LIKE IT that John (?***ever**) opened that box if he had ever opened that box.

With respect to (172c), the data in section 4.1.4 indicate that the positive evaluation in an optative cannot be in the scope of an adjunct clause; this suggests that such an analysis (with the *if*-clause taking scope over *EX*) is unmotivated.

While it is beyond the scope of this section to provide a general analysis of non-logical *if*-clauses, it can be argued that the Pesetsky-Williams style analysis in (171)

seems to yield an incorrect meaning anyway. For simplicity, assume that (173a) and (173b) are synonymous, which allows us to use a standard lexical entry for *be glad* from Villalta (2007), based on Heim (1992).

(173) a. It is good [**that** Bill is here].
b. I am glad [**that** Bill is here].

Under the Pesetsky-Williams analysis, (174a) would have the LF in (174b).

(174) a. It would be good [**if** Bill were here].
b. [would [**if** Bill were here] [it be good [**that** Bill is here]]].

Assuming the (slightly simplified) standard lexical entries in (175a+b), we derive the truth conditions in (175d).

(175) a. $||\text{it be good that p}|| = \lambda w.\forall w' \in \text{Dox}_{\text{speaker}}(w)$
$[\text{Sim}_{w'}(\textbf{Dox}_{\textbf{speaker}}(\textbf{w}) \cap p) >_{\text{speaker},w} \text{Sim}_{w'}(\textbf{rev}_{\neg p}(\textbf{Dox}_{\textbf{speaker}}(\textbf{w})) \cap \neg p)]$
*where*
– $\text{Sim}_{w'}(W)$ is the set of worlds contained in W that are maximally similar to w'
– $\text{Dox}_{\text{speaker}}(w)$ is the set of worlds compatible with what the speaker believes in w
– $>_{\text{speaker},w}$ means 'more preferable to the speaker in w'
– $\text{rev}_{p}(\text{Dox}_{\text{speaker}}(w))$ contains all worlds in $\text{Dox}_{\text{speaker}}(w)$ as well as the p-worlds most similar to w

**In words:** "All p-worlds that are most similar to the actual world according to the speaker's knowledge and beliefs are better than all of the most similar ¬p worlds"

b. $||\text{would}|| = \lambda p . \lambda q . \lambda w . \forall w' [w' \in \text{Sim}_{w}(\text{Dox}_{\text{speaker}}(w) \cap p) \rightarrow q(w')]$

**In words:** "All p-worlds that are most similar to the actual world according to the speaker's knowledge and beliefs are also q-worlds"

c. $||\text{if p}|| = ||p||$

d. $||\text{would(if p)(it be good that that p)}|| =$
$\lambda w.\forall w'[w' \in \text{Sim}_{w}(\text{Dox}_{\text{speaker}}(w) \cap p) \rightarrow \forall w'' \in \text{Dox}_{\text{speaker}}(w')$
$[\text{Sim}_{w''}(\textbf{Dox}_{\textbf{speaker}}(\textbf{w'}) \cap p) >_{\text{speaker},w'} \text{Sim}_{w''}(\textbf{rev}_{\neg p}(\textbf{Dox}_{\textbf{speaker}}(\textbf{w'})) \cap \neg p)]$

**In words:** see (176a)

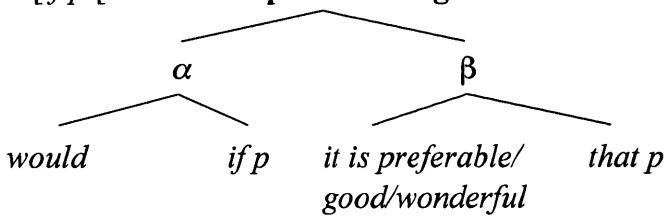
In words, (175d) derives a meaning for (174b) that can be paraphrased as in (176a) – importantly, the positive evaluation only holds in the counterfactual worlds in which Bill is here. Crucially, what (174a) actually means is (176b), where the positive evaluation holds in the actual world, but this is not what we derive[53].

(176) a. All else being equal, if we were in a world in which [$_p$ Bill is here], then (and only then) it would be the case that [$_p$ Bill being here] is better than [$_{\neg p}$ Bill not being here]. *(derived incorrectly by (175d))*

b. It is the case in the actual world, that, all else being equal, if we were in a world in which [$_p$ Bill is here], [$_p$ Bill being here] would be better than [$_{\neg p}$ Bill not being here]. *(not derived by the above analysis)*

This problem does not hinge on the lexical entries in (175a+b), but stems from the fact that the evaluative matrix predicate itself is embedded in the scope of the modal and thus counterfactual (i.e. the evaluation does not take place in the actual world – it only takes place in the counterfactual worlds that the modal quantifies over).

(177) [*if p* [**it would be preferable / good / wonderful** [*that p*]]]




The conclusion that *it would be good if p* is not equivalent to *if p then it would be good that p* is corroborated by the following contrast. Example (178a) is consistent as I don't want John to be here in the actual world, while I may benefit from it if he were here in worlds where he is here. In contrast, example (178b) is contradictory, as the second clause (*it would be nice if he were here*) seems to entail that in the actual world I want John to be here.

[53] See also von Fintel & Iatridou (2008) for further discussion of the distinction between desires that hold in the actual world, as in (176b), and desires that hold in counterfactual worlds, as in (176a).

(178) a. It's not the case that I want John to be here, but if he were here, it would be nice that he's here.

b.# It's not the case that I want John to be here, but it would be nice if he were here.

This suggests that such an account may not be on the right track, i.e. more needs to be said in any case, supporting an alternative view where non-logical *if*-clauses may after all be complement *if*-clauses.

Returning to optatives, I henceforth assume that an analysis like (179b) is on the right track, and, more specifically, I propose the generalized exclamation operator *EX* as in (179c). (Section 4.1.4 provides evidence against a matrix clause deletion analysis.)

(179) a. If only John had (?***ever**) opened that box!

b. I WOULD LIKE IT [if only John had (?***ever**) opened that box]!

c. $EX_S$ [if only John had (?***ever**) opened that box]!

One thing that is important to point out is that the scalar *EX* operator may not behave uniformly with respect to NPI licensing. Reconsidering Linebarger's (1987:328) examples, on which (180) is based on, it is plausible that *I'm glad* is the scalar antonym of *I'm sorry*, i.e. scale orientation seems to matter for NPI licensing.

(180) a. I'm sorry [that I **(ever)** met him].

⇒ All else being equal, worlds in which I met him are **lower** on my preference/desirability scale than worlds in which I didn't meet him.

b. I'm glad [that I (***ever**) met him].

⇒ All else being equal, worlds in which I met him are **higher** on my preference/desirability scale than worlds in which I didn't meet him.

We thus expect *EX* utterances to vary in their behavior, depending on which scale *EX* combines with. As shown in (181), *be surprised / amazed / astounded* all license NPIs. These predicates can be assumed to involve an inverse likelihood scale (cf. Villalta 2007).

(181) a. She was surprised/amazed that there was **any** food left.

b. I'm / I was surprised that he **budged an inch**.

c. We were astounded that she **lifted a finger** to help considering her reputation for laziness.

(Linebarger 1987:328,340,362)

I have argued that polar exclamatives are *EX* utterances where *EX* combines with an inverse likelihood scale. We thus expect them to differ from optatives in their NPI licensing behavior. Consider first a baseline example of an utterance that has an optative reading and a polar exclamative reading.

(182) a. Mensch, dass dieser Kandidat einmal einen Förderpreis erhalten hat!
man that this candidate once a grant received has
'Man, that this candidate has once received a grant!'

b. *scenario for optative reading*

We are auditioning different candidates for a new job. So far, none of our candidates has ever received a grant. We are tired and desperate and really hope that the candidate who is about to enter has received a grant at least once.

*paraphrase:* '[Let's hope] that this candidate has once received a grant!'

c. *scenario for polar exclamative reading*

We are auditioning different candidates for a new job. Our last candidate was a complete disaster and we consider him completely incompetent. However, he has received a grant once in his career, which shocks us. After he leaves, we express our shock (and dismay) at this fact.

*paraphrase:* '[It's shocking] that this candidate has once received a grant!'

Based on the above discussion, we predict the following. If we replace *einmal* 'once' by the NPI *je(mals)* 'ever', the optative reading should disappear, but the polar exclamative reading should still be possible. This is exactly what we find, as given in (183).

(183) Mensch, dass dieser Kandidat **je(mals)** einen Förderpreis erhalten hat!
man that this candidate ever a grant received has
'Man, that this candidate has ever received a grant!'

* *optative reading*
✓ *polar exclamative reading*

The observation is supported by the fact that future-oriented statements of this sort become deviant with an NPI, as future-orientation typically clashes with the factivity found in polar exclamatives. This is shown in (184).

(184) ?#Mensch, dass der nächste Kandidat **je(mals)** einen Förderpreis erhalten hat!
man that the next candidate ever a grant received has
'Man, that this candidate has ever received a grant!'

**optative reading* / ?# *polar exclamative reading*

The baseline example without NPI is given in (185), which clearly contrasts with (184).

(185) Mensch, dass der nächste Kandidat einmal einen Förderpreis erhalten hat!
man that the next candidate once a grant received has
'Man, that this candidate has at least once received a grant!'

✓*optative reading* / ?# *polar exclamative reading*

These facts thus support a view where optatives (and polar exclamatives) involve a covert *EX* operator and NPI licensing properties derive from the type of scale that *EX* combines with. However, this is a good point to emphasize that these facts are also compatible with a matrix clause deletion approach (where polar exclamatives contain an elided *I'm surprised that* and optatives contain an elided *It would be good if*). I argue against such an option in section 4.1.4. Before doing so, I discuss more parallels between non-logical *if*-clauses and *if*-optatives in the following sections, arguing that they further support a view that treats optatives as some type of complement clause.

#### 4.1.3.2 On Inversion in Optatives

Having argued that optatives, like non-logical conditionals, quite generally do not allow for NPIs, a second argument can be made in favor of treating optatives on a par with non-logical conditionals, as cases where the denoted proposition provides the subject matter of emotion (Pesetsky 1994) for a higher emotive predicate.

The relevant observation for non-logical conditionals is that their potential for V-to-C movement (*conditional inversion*, cf. Iatridou & Embick 1994) is limited if they are in the indicative mood (cf. Reis & Wöllstein 2010 for German). Native speakers of Dutch and German observe contrasts such as the following. Dutch allows for conditional inversion in indicative conditionals that have a logical reading, shown in (186).

(186) *Dutch logical conditional*

a. **Als** het water onder deze lijn **zakt**, wordt de verwarming uitgeschakeld.
if the water below this line sinks is the heating turned.off
'If the water drops below this line, the heating will turn off.'

b. **Zakt** het water onder deze lijn, wordt de verwarming uitgeschakeld.
sinks the water below this line is the heating turned.off
'If the water drops below this line, the heating will turn off.'

Contrastively, such conditional inversion is constrained in indicative conditionals with a non-logical reading, shown in (187).

(187) *Dutch non-logical conditional*

a. **Als** Otto vandaag thuis **blijft**, is het beter.
if Otto today at.home stays is it better
'If Otto stays at home today, it's better.'

b. ?? **Blijft** Otto vandaag thuis, is het beter.
stays Otto today at.home is it better
'If Otto stays at home today, it's better.'

The same effect can be reproduced for German, shown in (188) and (189).

(188) *German logical conditional*

a. **Wenn** der Wasserstand unter diese Linie **sinkt**, dann schaltet sich
if the water below this line sinks then turns self
die Heizung aus.
the heating off
'If the water drops below this line, the heating will turn off.'

b. **Sinkt** der Wasserstand unter diese Linie, dann schaltet sich die
sinks the water below this line then turns self the
Heizung aus.
heating off
'If the water drops below this line, the heating will turn off.'

(189) *German non-logical conditional*

a. **Wenn** der Otto heute zuhause **bleibt**, dann ist es besser.
if the Otto today at.home stays then is it better
'If Otto stays at home today, then it's better.'

b. ?? **Bleibt** der Otto heute zuhause, dann ist es besser.
stays the Otto today at.home then is it better
'If Otto stays at home today, then it's better.'

Crucially, indicative *if*-optatives behave like non-logical *if*-clauses and not like logical *if*-clauses. Conditional inversion is impossible, as shown in (190) for Dutch and in (191) for German. Presumably the reason that the effect is so much stronger here is due to the possibility of treating the non-optative *if*-clauses in (187) and (189) as logical conditionals.

(190) *Dutch if-optative*

a. **Als** de sneeuw nou maar lang genoeg **blijft** liggen!
if the snow PRT PRT long enough stays lie
'If only the snow stays put for long enough!'

b.* **Blijft** de sneeuw nou maar lang genoeg liggen!
stays the snow PRT PRT long enough lie
'If only the snow stays put for long enough!'

(191) *German if-optative*

a. **Wenn** es heute nur JA **schneit**!
if it today only JA snows
'If only it snows today!'

b. * **Schneit** es heute nur JA!
snows it today only JA
'If only it snows today!'

This is further evidence that *if*-optatives behave like non-logical *if*-clauses rather than like logical *if*-clauses, namely as constructions where the denoted proposition is treated as 'complement' to some higher operator (which I implement by positing *EX*).

The question arises, once again, how to derive the contrast between optatives and non-logical *if*-clauses on the one hand, and logical *if*-clauses on the other hand. I will discuss these facts in chapter 5. For now, it suffices to state that indicative conditionals that allow for conditional inversion are marked in that they have specific properties / restrictions different from other conditionals (cf. Iatridou & Embick 1994, Reis & Wöllstein 2010).

#### 4.1.3.3 On Morphological Tense and Mood in Optatives

Further support for grouping *if*-optatives with non-logical *if*-clauses may be drawn from mood matching effects (which plausibly relate to sequence of tense effects). German and English differ in the following way. Only German allows for indicative non-counterfactual optatives (although Rifkin 2000 and Biezma 2011ab report that a subset of English speakers allow for these, too); this is shown in (192).

(192) a. $^{(\%)}$* **If** only it **snows** today!

b. **Wenn** es heute nur **schneit**!
if it today only snows
'If only it snows today!'

In contrast, both languages allow for counterfactual optatives. These can be past-oriented, like (193), or non-past-oriented, like (194).

(193) a. **If** only it **had snowed** yesterday!

b. **Wenn** es gestern nur **geschneit hätte**!
if it yesterday only snowed had
'If only it had snowed yesterday!'

(194) a. **If** only it **snowed** today!

b. **Wenn** es heute nur **schneien würde**!
if it today only snow would
'If only it would snow today!'

For now, let us make the auxiliary assumption that *if*-optatives always behave as if they were embedded under a subjunctive matrix clause, like *it would be nice*. I will not literally assume that this is the case, but rather assume that mood choice in *if*-clauses is sensitive to embedding material (which may come in the form of a matrix clause or in the form of a higher operator such as *EX*), see also chapter 5. The difference between English and German can then be reduced to language specific requirements on mood selection. In German, (195a) is grammatical, even though the matrix clause is in the subjunctive and the *if*-clause in the indicative (a 'mood mismatch'). Crucially, the indicative *if*-optative in (195b) is equally grammatical in German.

(195) a. Es wäre schön, [wenn es heute **schneit**]!
it were nice if it today snows
'It would be nice [if it snows today].'

b. Wenn es heute nur **schneit**!
if it today only snows
'If only it snows today!'

In contrast, in English, (196a) is judged ungrammatical or at least degraded. This correlates with the ungrammaticality of (196b). The fact that some speakers accept (196b) may then correspond to the observation that some speakers accept (196a) (though a thorough investigation of this matter is necessary in future research).

(196) a. ??It would be nice [if it **snows** today].

b. (%)*If only it **snows** today!

Naturally, if the *if*-clause is in the subjunctive, as in the minimally contrasting example (197a), no such issue arises, as the two clauses then match in their mood. This correlates with the grammaticality of (197b).

(197) a. It would be nice [if it **snowed** today].
b. If only it **snowed** today!

Naturally, the German examples in (198) are equally acceptable. These are given for completeness' sake.

(198) a. Es wäre schön, [wenn es heute **schneien würde**]!
it were nice if it today snow would
'It would be nice [if it snowed today].'

b. Wenn es heute nur **schneien würde**!
if it today only snow would
'If only it snowed today!'

What (195)-(197) show is that the possible mood specifications in optatives correlate with the mood specifications that are possible in an *if*-clause that is subordinated to the subjunctive matrix clause *it would be nice*. Evidently, this is another correlation between non-logical *if*-clauses and *if*-optatives, supporting the view that *if*-optatives are some type of complement clause.

A challenge to this view arises from the stipulation that *EX* behaves like a subjunctive matrix clause in terms of the mood that it imposes on its *if*-clause complement. One might wonder why *EX* cannot behave like an indicative matrix clause. Crucially, example (199) shows that non-logical *if*-clauses are generally degraded in the scope of indicative matrix clauses, so even if *EX* was to pattern on a par with such clauses, the results would be the same. We can thus conclude that optatives (which I analyze as *EX*-utterances) pattern on a par with non-logical *if*-clauses when it comes to mood selection in the *if*-clause.

(199)a.* It is nice [if it **snows** today].

b.?? It will be nice [if it **snows** today]. [54]

Logical *if*-clauses have no restriction of this type, as shown in (200b), which is perfectly grammatical. These observations thus provide further support for grouping *if*-optatives with non-logical *if*-clauses,

(200)a. [If it **snowed** today], we would have a lot of fun.

b. [If it **snows** today], we will have a lot of fun.

Concluding that *if*-optatives and non-logical *if*-clauses have similar mood selection requirements, we can also conjecture that there should be a cross-linguistic correlation between the absence of mood matching in non-logical conditionals and the possibility of indicative *if*-optatives. We predict that only languages that do not require the subjunctive in non-logical *if*-clauses allow for indicative *if*-optatives.

Comparing Serbian/Croatian to Czech, we find evidence that this is a correct prediction. In Serbian (and Croatian), we observe that non-logical conditionals can be in the present tense indicative, as shown in (201b).

(201)a. Bilo bi dobro [da je padala kisha danas]. *Serbian*
was subj good that is fallen rain today
'It would be good if it rained today.'

b. Bilo bi dobro [da pada kisha danas].
was subj good that falls rain today
'It would be good if it rains today.'

As predicted, indicative optatives are possible, as shown in (202b).

(202)a. Da je samo padala kisha danas! *Serbian*
that is only fallen rain today
'If only it rained today!'

---

[54] However, compare Pesetsky's (1991:65) example in (i).

i. I will love it [if John never looks at his books again].

b. Da samo pada kisha danas!
that only falls rain today
'If only it rains today!'

Contrastively, Czech exhibits a behavior like in English; as shown in (203b), present tense indicative is not possible in a non-logical *if*-clause.

(203) a. Bylo by dobré [kdyby dnes pršelo]. *Czech*
was subj good if today rained
'It would be good if it rained today.'

b.* Bylo by dobré [když dnes prší].
was subj good if today rains
'It would be good if it rains today.'

Again, we predict correctly that Czech does not allow for indicative *if*-optatives, (204b+c).

(204) a. Kdyby jen dnes pršelo! *Czech*
if only today rained
'If only it rained today!'

b.# Když dnes jen prší.
if today only rains
'If it only rains today..' (incomplete statement with narrow focus)

c.* Když jen dnes prší.
if only today rains
'If only it rains today!'

The difference between Serbian/Croatian and Czech thus mirrors the difference between German and English. These facts support the cross-linguistic generalization that languages exhibit a correlation between the possibility of indicative *if*-optatives and the possibility of indicative non-logical *if*-clauses in combination with subjunctive-marked matrix clauses. This is a further parallel between the two types of constructions, which follows if the mood selection properties of *if*-clauses are identical in the scope of *EX* and in the position of a non-logical *if*-clause.

#### 4.1.3.4 On the Range of Functions for *EX*-Utterances

Further motivation for approximating *if*-optatives to non-logical *if*-clauses stems from the fact that non-logical *if*-clauses typically express some type of *Subject Matter of Emotion* (Pesetsky 1991, 1994). This observation goes back to Williams (1974); it is illustrated in (205) and (206): Evaluative predicates like *shame(ful)* and *sorry* can combine with a non-logical *if*-clause, but non-evaluative predicates like *unlikely* and *convinced* cannot do so.

(205) a. It would be **a shame** / ***unlikely** [if Bob left].
b. It is **shameful / unlikely** [that Bob left].
(adapted from Williams 1974:158)

(206) a. I would be **sorry** / ***convinced** [if Bob left].
b. I am **sorry / convinced** [that Bob left].
(adapted from Williams 1974:158-159)

Pullum (1987) gives a selection of examples that contain a non-logical *if*-clause and express a positive evaluation, given in (207).

(207) a. It would **be preferable** [if Kim were not informed].
b. It might **be better** [if I were not here when Lee returned].
c. It will **be great** [if Tracy is there].
d. It would **be wonderful** [if unicorns existed].
e. I would **be grateful** [if Kim were not informed].
f. It would **be a good thing** [if Kim were not informed].
g. I would **prefer** it [if Kim were not informed].
h. Wendy would **appreciate** it [if she were left alone from now on].
i. I would **really dig** it [if you tickled my toes].
j. I wouldn't **object to** it [if you left early].
k. Lee would **be quite happy about** it [if you borrowed the car].
l. Would you **be comfortable with** it [if we stayed an extra day]?
m. I hope you wouldn't **have any problem with** it [if Dana were invited].
n. The Dean would **be appreciative of** it [if his desk were returned].
(Pullum 1987)

The link to optatives is obvious, as optatives express a positive evaluation. Example (208a) seems similar in meaning to example (207d). In the same vein, example (208b) corresponds to (207h), and example (208c) to example (207n).

(208) a. If only unicorns existed!
b. If only she were left alone from now on!
c. If only his desk were returned!

What is more, in addition to independent *if*-optatives, we find other types of independent *if*-clauses in German, which correspond to the other functions of non-logical *if*-clauses. Assuming that optatives express *positive evaluation*, let us now consider *negative evaluation*.

Assume that there is an "anti-optative", or rather, as I will call it, an *adversative*. (Again this is a purely descriptive concept.) An *adversative utterance* can then be defined as an utterance that expresses disgust, rejection, dislike or reprimand without containing a lexical item that means *disgust*, *rejection*, *dislike* or *reprimand*. We can then start looking for *(independent) if-adversatives*, defined as conditional antecedents that can be used in an adversative utterance and are not accompanied by an overt matrix clause. While we do not find *if*-adversatives in English, German does seem to have such constructions, illustrated in (209a) and (209b). Scholz (1991) treats the two types as fundamentally distinct in function, but for our purposes such a distinction is not motivated; both express a negative evaluation, as illustrated by means of the paraphrase in terms of a non-logical *if*-clause. Example (209a) is used to express a reprimand; example (209b) is used to express dislike, rejection or disgust.

(209) a. Wenn du ihn halt auch so lange hast warten lassen!
if you him HALT also so long have wait let
*lit.* 'Well, if you had to make him wait for so long!'
≈ 'Of course he'll **hate** it [if you make him wait for so long]!'
(Scholz 1991:45, translations and paraphrases are mine)

b. Mein Gott! Der Olaf! Wenn ich den schon sehe!
my God the Olaf if I him already see
*lit.* 'My God! Olaf! If I just see him!'

≈ 'It **makes** me **sick** [if I see Olaf]!'

(Scholz 1991:48, translations and paraphrases are mine)

Non-logical *if*-clauses that express a negative evaluation are shown in (210).

(210) a. It would **be a shame** [if Bob left].

(Williams 1974)

b. I would **consider** it **odd** [if he left].
c. I'd **complain about** it [if our coffee break were shortened].
d. Kim would **be cut up over** it [if our coffee break were shortened].

(Pullum 1987)

In sum, we have so far seen that unembedded *if*-clauses can express a positive or negative evaluation, and so can non-logical *if*-clauses.

To complete the typology of independent *if*-clauses and non-logical *if*-clauses, we can also define *admirative utterances* as utterances that express surprise, irony, doubt or sarcasm without containing a lexical item that means *surprise* or *doubt*. An *(independent) if-admirative* is then an *if*-clause that acts as an admirative utterance without an accompanying matrix clause. German seems to have such *if*-admiratives, as illustrated in (211), with a paraphrase that employs a non-logical *if*-clause. (In a way, these clauses may be just labeled *if-exclamatives*, which is the label that I will use later on.)

(211) Wenn das mal keine guten Nachrichten sind.
if that MAL no good news are
'Well, if this isn't good news!'

≈ 'It would **surprise** me [if this isn't good news].'

(Scholz 1991:43, translations and paraphrases are mine)

Non-logical *if*-clauses that serve the purpose of evaluating whether something is surprising or unsurprising are found in the literature, as shown in (212).

(212) a. It wouldn't **surprise** me [if she came].
(Jackendoff 1977)

b. It would **surprise** me [if she were able to accept].
(Pullum 1987)

To conclude, I have shown in this section that exclamations (which plausibly all involve the *EX* operator) exhibit the same range of variation as non-logical *if*-clauses. Their function is to express the subject matter of emotion to some (null) predicate, which I take to be *EX* in the case of exclamations.

#### 4.1.3.5 Interim Summary

In this section, I have argued that there is quite generally a correlation in behavior between *if*-optatives and non-logical *if*-clauses (as opposed to logical *if*-clauses). First, both types of *if*-clauses disallow NPI items. Second, both non-logical *if*-clauses and *if*-optatives in Dutch and German disprefer conditional inversion. Third, both types of constructions correlate in their constraints on mood marking. Fourth, and finally, both types of constructions are typical for contexts where the *if*-clause is understood as the *Subject Matter of Emotion* (Pesetsky 1991, 1994). I interpret this connection as indicating that *if*-optatives are complements of some higher predicate, in the same way in which non-logical *if*-clauses may be treated as *complement if-clauses*. As it stands, there are different options of how to implement such a view, one of which employs matrix clause deletion. In the next section, I will show that there is evidence against matrix clause deletion, i.e. the higher predicate cannot be a null attitude verb. By contrast, I argue for a generalized exclamation operator *EX*, which performs the function of semantically embedding the expressed proposition.

### 4.1.4 Optative clauses do not involve matrix clause deletion

In this section, I argue that even though optatives behave like complement clauses (see section 4.1.3), they are not embedded in a larger matrix clause. In other words, they do

not contain an unpronounced (or 'elided') matrix clause. This means that the embedding operator (*Op* in (142)) cannot be an attitude verb in a higher clause, against (213a); by contrast, I argue that this operator is located in the left periphery of the optative clause itself, as shown in (213b).

(213) *Sub-Claim 2: Optatives are truly unembedded utterances*

a. *the wrong analysis:*

✗ [$_{VP}$ … V [$_{CP}$ **Daß / Wenn** er doch nur rechtzeitig gekommen **wäre**!]]
that if he doch only in.time come were
'If only he had come in time!'

b. *the right analysis:*

✓ [$_{ExcP}$ *EX* [$_{CP}$ **Daß / Wenn** er doch nur rechtzeitig gekommen **wäre**!]]
that if he doch only in.time come were
'If only he had come in time!'

Let me first provide some background on the issue at stake. The question of whether matrix clause deletion exists is a general problem for linguistic theory, which arises whenever we encounter utterances that have the morphosyntax of embedded clauses (e.g. an overt complementizer), but the distribution of matrix clauses. Example (214a) (from Evans 2007:373) is perceived to be an *if*-optative without an optative particle. (We will come back to this in chapter 6.) Example (214b) is a corresponding *that*-optative. Both clauses have the morphosyntax of embedded clauses (complementizer *wenn* 'if' or *dass* 'that', and absence of verb-second movement), but they both can occur without an overt matrix clause. This phenomenon is descriptively subsumed under the term *insubordination* (Evans 2007, Cable 2009, 2010ab).

(214)a. Wenn ich deine Statur hätte!
if I your build had
'[Oh!] If [only] I had your build!'

b. Dass ich deine Statur hätte!
that I your build had
'[Oh!] That I had [but] your build!'

Evans (2007) argues that insubordination involves the reconstruction of an omitted matrix clause. This is illustrated in (215a) (from Evans 2007:373; formatting and glossing convention are mine) and (215b).

(215) a. [~~Es wäre schön,~~] Wenn ich deine Statur hätte!
it were lovely if I your build had
'[It would be lovely] if I had your build.'

b. [~~Ich wünschte,~~] Dass ich deine Statur hätte!
I wish that I your build had
'[I wish] I had your build.'

The question that is most relevant for our purposes is whether we are dealing with ellipsis of the familiar type (subsuming different configurations such as VP ellipsis, sluicing or fragment answers, see Merchant 2001 for an overview). Such ellipsis should have a structural reflex, which can be detected, i.e. the elided material should be present in the syntax and simply remain unpronounced at PF. I will call such a view the *deletion hypothesis*, which contrasts with the *independence hypothesis* that *if*-optatives and *that*-optatives do not involve unpronounced material of this type. In the next section, I provide a novel argument to show that *if*-optatives and *that*-optatives do not involve deletion of a matrix clause at PF. I will then review previous arguments that corroborate my proposal. I conclude that we cannot be dealing with ellipsis of the familiar type; the facts support the independence hypothesis and not the deletion hypothesis.

#### 4.1.4.1 The core argument against matrix clause deletion

In this section, I propose a novel argument against a deletion analysis of both *if*-optatives and *that*-optatives. The core premise is that an adverbial clause can take scope over a matrix clause if and only if that matrix clause is syntactically projected; therefore, if there is an unpronounced matrix clause in an *if*-optative or *that*-optative, any adverbial should be able to take scope over it that can otherwise scope over its overt counterpart. (This diagnostic is based on Ross 1970, Lakoff 1970:172-173, see also Levinson 1983:249.)

Consider first two examples that allow for *weil* 'because' to take scope over a conditional clause. (216a) is clearly a logical conditional, whereas (216b) arguably has a non-logical reading. The *weil* 'because' clause can take scope over either matrix clause.

(216)a. [ **Alles wäre gut,** wenn Hans gekommen wäre,] **weil** er immer
all were good if Hans come were because he always
guten Wein mitbringt.
good wine brings
'All would be well if Hans had come, because he always brings good wine.'
✓ *because he always brings good wine > [all would be well if Hans had come]*

b.[ **Es wäre besser,** wenn Hans gekommen wäre,] **weil** er immer
it were better if Hans come were because he always
guten Wein mitbringt.
good wine brings
'It would be better if Hans had come, because he always brings good wine.'
✓ *because he always brings good wine > [it would be better if Hans had come]*

The logic of the following tests is that *weil* 'because' clauses should be able to take scope over the *positive evaluation* component of an *if*-optative (or *that*-optative) if the positive evaluation is encoded by means of an elided matrix clause. These tests can be carried out independently of whether the *if*-clause is a logical *if*-clause, (216a), or a non-logical *if*-clause, (216b). I will show that optatives cannot involve matrix clause deletion no matter whether they are analyzed as logical or non-logical *if*-clauses, i.e. this proposal is independent from the proposal in section 4.1.3.

Before carrying out these tests, I consider it necessary to qualify the diagnostic and show why this diagnostic cannot be straightforwardly applied to English. The problem is that there is a variant of *weil* 'because' clauses that occurs much more freely and unrestricted than what is required by the diagnostic outlined above (easily detectable in German as it requires verb second); I will call these *weil*-clauses *free adverbials*. Such free-adverbial *because*-clauses can seemingly modify anything, even secondary speech acts, as shown in (217a), where the *because*-clause modifies the secondary speech act (cf. Levinson 1983 for a discussion) and not the literal meaning; crucially, in German, free-

adverbial *because*-clauses require verb-second, as shown in (217a) versus (217b). In (217b), which is verb final, the free adverbial reading is blocked. For background on *weil*-V2-clauses, see Antomo & Steinbach (2010) and references therein.

(217) a. Könntest du mir bitte meinen Koffer runtergeben?, weil ich
could you me please my suitcase pass.down because I

**habe** Probleme mit meinem Arm.
have problems with my arm

'Could you please lift down my suitcase?, because I have problems with my arm.'

✓ *because I have problems with my arm > [I ask you to [pass me my suitcase]]*

b.* Könntest du mir bitte meinen Koffer runtergeben?, weil ich
could you me please my suitcase pass.down because I

Probleme mit meinem Arm **habe**.
problems with my arm have

'Could you please lift down my suitcase?, because I have problems with my arm.'

Another illustration is given in (218). Again, the verb-second *because*-clause in (218a) allows for a free adverbial interpretation, taking scope over the secondary speech act, whereas the verb-final *because*-clause in (218b) disallows such a reading.

(218) a. Warum nicht einmal Kant lesen?, weil davon **schläft** doch
why not once Kant read because from.that sleeps DOCH

jeder ein.
everyone v.prt

'Why not read Kant?, because everyone falls asleep from doing that.'

✓ *because everyone falls asleep from reading Kant > [I recommend that you [read Kant]]*

b.* Warum nicht einmal Kant lesen?, weil davon doch
why not once Kant read because from.that DOCH

jeder ein**schläft**.
everyone falls.asleep

'Why not read Kant?, because everyone falls asleep from doing that.'

Having established this, the diagnostic can be formulated as follows. If a verb-final *because*-clause can take scope over the positive evaluation component of an *if*-clause that seems to express positive evaluation, we can conclude that there is an unpronounced matrix clause. If a verb-final *because*-clause cannot do so, we can conclude that there is no unpronounced matrix clause. Clearly, this does not work as straightforwardly for English, as we do not have a way (except for intonational cues) to block a free adverbial reading[55].

Reconsider a baseline example of conditionals modified by a verb-final *because*-clause; our test examples will be based on this one. Example (219a) is a clear case of a logical conditional, whereas (219b) can be argued to have a non-logical reading. In both cases, the matrix clause can be in the scope of the *because*-clause, as indicated.

(219) a. Die Party wäre ein Erfolg gewesen, wenn Hans gekommen wäre,
the party were a success been if Hans come were

weil er immer guten Wein mitbringt.
because he always good wine brings

'The party would have been a success if Hans had come, because he always brings good wine.'

✓ *because he always brings good wine > [the party would have been a success if Hans had come]*

b. Es wäre besser gewesen, wenn Hans gekommen wäre, weil
it were better been if Hans come were because

er immer guten Wein mitbringt.
he always good wine brings

'It would have been better if Hans had come, because he always brings good wine.'

✓ *because he always brings good wine > [it would have been better if Hans had come]*

---

[55] It is conceivable that other adverbials in English behave on a par with German verb-final *because* clauses. Two plausible candidates are clauses initiated by *contrary* (as in *contrary to what John said*) and adverbials such as *for obvious reasons*.

Consider now a case of an answer fragment, given in (220). Answer fragments quite uncontroversially involve deletion of the 'topical part' (i.e. the old information), Merchant (2004). Example (220a) shows that a verb-final *because*-clause can combine with a logical *if*-clause that is uttered in response to a question; example (220b) shows that a verb-final *because*-clause can combine with a non-logical *if*-clause, also in response to a question. This is predicted, given our above premise; we can consider this a confirmation of the proposed diagnostic. (In the *LF* line, I use strikethrough to mark unpronounced material present at LF.)

(220) a. A: Unter welchen Umständen wäre die Party ein Erfolg gewesen?
under which circumstances were the party a success been
'Under which circumstances would the party have been a success?'

B: Wenn Hans gekommen wäre weil er immer guten Wein
if Hans come were since he always good wine
mitbringt.
brings
'If Hans had come, because he always brings good wine.'

✓ *because he always brings good wine > [The party would have been a success if Hans had come]*

LF: [~~**The party would have been a success**~~ if Hans had come], because he always brings good wine.

b. A: Was wäre besser gewesen?
what were better been
'What would have been better?'

B: Wenn Hans gekommen wäre weil er immer guten Wein
if Hans come were since he always good wine
mitbringt.
brings
'If Hans had come, because he always brings good wine.'

✓ *because he always brings good wine > [it would have been better if Hans had come]*

LF: [~~**It would have been better**~~ if Hans had come], because he always brings good wine.

We can thus conclude that verb-final *because*-clauses can combine with a conditional that contains an elided matrix clause, taking scope over the entire construction. The same test can now be applied to *if*-optatives, in (221). Crucially, I argue that (221) shows that there is no elided matrix clause, as the *because*-clause cannot take scope over the positive evaluation. A possible alternative explanation might of course be that there is an unpronounced matrix clause that just conflicts with the relevant *because*-clause. However, given that positive evaluation makes propositions like 'I would be happy', 'it would be good' or 'all would be well' salient, these are the most likely contenders for an elided and contextually licensed matrix clause. All of these should be compatible with the *because*-clause, as shown in (220). The burden of the proof is thus on whoever argues in favor of matrix clause deletion to show that (221) is impossible because of the matrix clause that is filled in.

(221) Wenn Hans **doch nur** gekommen wäre (#weil er immer
if Hans DOCH only come were because he always
guten Wein mitbringt).
good wine brings
'If only Hans had come (#because he always brings good wine).'

* *because he always brings good wine > [I would be happy if Hans had come]*

* *because he always brings good wine > [it would be good if Hans had come]*

* *because he always brings good wine > [all would be well if Hans had come]*

For completeness, it is useful to point out that the only possible reading for the *because*-clause is one where it takes narrow scope over Hans's reason for coming. This reading for (221) is illustrated in (222), which is clearly bizarre, as Hans's reason for coming can hardly be that he always brings good wine (though we might conceive of a context where this is good).

(222) ??? Wenn Hans **doch** **nur** gekommen wäre weil er immer
if Hans DOCH only come were because he always
guten Wein mitbringt, und nicht weil er seine Wohnung hasst.
good wine brings and not because he his apartment hates
'If only Hans had come because he always brings good wine, and not because he hates his apartment.'

✓ *I wish > because he always brings good wine > Hans had come*
'I wish that [Hans's reason for coming had been that he always brings good wine and not that he hates his apartment]'

These examples show that adverbial clauses that combine with optatives cannot take scope over the positive evaluation; this indicates that the positive evaluation is not expressed by means of an unpronounced matrix clause. We can conclude that optatives do not contain an unpronounced matrix clause.

As a control example, (223) shows that the overt matrix clause in optative conditionals (defined as conditional clauses that contain a seemingly optative antecedent) can be in the scope of a *because*-clause. This may be taken to indicate that the facts in (221) do not just derive from a constraint that optatives may not be in the scope of *because*-clauses. (Alternatively, as I argue, cases like (223) might involve parenthetical *if*-optatives as opposed to truly embedded *if*-optatives, i.e. the because clause attaches directly to an implicitly conditionalized matrix clause, with a parenthetical *if*-optative.)

(223) [Alles wäre gut, wenn Hans **doch** **nur** gekommen wäre], weil
all were good if Hans DOCH only come were since
er immer guten Wein mitbringt.
he always good wine brings
'Everything would be alright if only Hans had come, because he always brings good wine.'

✓ *because he always brings good wine > [everything would be alright if Hans had come]*

Importantly, the present conclusion carries over to *that*-optatives. Example (224) shows that a verb-final *because*-clause can take scope over a matrix clause of the form *I wish*.

(224) Ich wünschte, dass Hans gekommen wäre, weil er immer
I wished that Hans come were because he always
guten Wein mitbringt.
good wine brings
'I wish Hans had come, because he always brings good wine.
✓ *because he always brings good wine > [I wish Hans had come]*

Correspondingly, in the fragment answer in (225) the *because*-clause can take scope over an unpronounced matrix clause.

(225) A: Was würdest du dir wünschen?
what would you you wish
'What would you wish for?'
B: Dass Hans gekommen wäre, weil er immer guten Wein mitbringt.
that Hans come were because he always good wine brings
'That Hans had come, because he always brings good wine.'
✓ *because he always brings good wine > [I wish Hans had come]*
LF: [~~**I wish**~~ that Hans had come], because he always brings good wine.

Again, in the *that*-optative, it is not possible to have a the *because*-clause with scope over the positive evaluation / wish, as shown in (226).

(226) Dass Hans **doch** **nur** gekommen wäre, (#weil er immer guten
that Hans DOCH only come were because he always good
Wein mitbringt.
wine brings
'That Hans had but come, (#because he always brings good wine).'
* *because he always brings good wine > [I wish Hans had come]*
✓ *I wish > because he always brings good wine > [Hans had come]*

As a final note, it is worth pointing out that even *nicht-dass*-clauses, which are a type of order/command, seem to be truly unembedded (though they cannot be used as answers to

any questions, which is why the following paradigm is deficient). The ill-formed example (227c) contrasts with the well-formed (227a) in that (227a) allows the verb-final *weil*-clause to scope over the expression of my desire, whereas (227c) doesn't allow this. Again, the verb-second *weil*-clauses in (227b) and (227d) are the control cases.

(227) a. **Ich will nicht dass** du wieder soviel trinkst,
I want not that you again so.much drink

**weil** die Mama dann wieder mit mir **schimpft**!
because the mum then again with me scolds

b. **Ich will nicht dass** du wieder soviel trinkst,
I want not that you again so.much drink

**weil** die Mama **schimpft** dann wieder mit mir!
because the mum scolds then again with me

c.# **Nicht dass** du wieder soviel trinkst,
not that you again so.much drink

**weil** die Mama dann wieder mit mir **schimpft**!
because the mum then again with me scolds

d. **Nicht dass** du wieder soviel trinkst,
not that you again so.much drink

**weil** die Mama **schimpft** dann wieder mit mir!
because the mum scolds then again with me

'(I) don't (want) you to get so drunk again, because mum always scolds me!'

In brief, we can conclude that German exhibits a broad paradigm of truly unsubordinated clauses with the syntax of subordinated clauses. Most crucially, we can conclude that neither *if*-optatives nor *that*-optatives contain an unpronounced matrix clause expressing the positive evaluation that they convey. In connection with the fact that optatives seem to behave like complement clauses, I proceed to argue that there is an operator (*EX*) in the left periphery of an optative clause, which takes the core clause as its complement. Before doing so, let us however review two previous arguments against matrix clause deletion, posited by Scholz (1991) and Rifkin (2000), which corroborate the present claim.

### 4.1.4.2 Further evidence against matrix clause deletion: Scholz (1991)

Scholz (1991) quotes several earlier proponents of the deletion hypothesis[56] (see also Evans 2007); she points out that their main argument is circular in that the authors base their arguments for matrix clause deletion on the fact that optatives have the morphosyntax of embedded clauses. To illustrate, Scholz (1991:7) considers (228c-h) as possible reconstructed consequents for the *if*-optative in (228a) and its counterpart with V-to-C movement in (228b). She attributes (228c+h) to Kasper (1987:108-109)[57].

(228) a. Wenn du mir (doch nur) geholfen hättest, ...
if you me DOCH only helped had
'If (only) you had helped me, ...'

b. Hättest du mir (doch nur) geholfen, ...
had you me DOCH only helped
'Had you (only) helped me, ...'

c. ... dann wäre mein Wunsch erfüllt. ≈ *speaker's desire*
then were my wish fulfilled
'... then my wish would have been fulfilled.'

d. ... dann hätte ich, was ich wünschte. ≈ *speaker's desire*
then had I what I wish
'... then I would have what I wish for.'

e. ... dann wäre ich froh. ≈ *speaker's desire*
then were I happy
'... then I would be happy.'

f. ... dann wäre es gut. ≈ *general wellfare*
then were it good
'... then it would be good.'

g. ... dann könnte ich endlich weiterarbeiten. ≈ *reason-specifying*
then could I finally continue,working
'... then I could finally go on working.'

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[56] Erben (1972:113), Glinz (1971:116-117), Heidolph et al (1981:93), Helbig/Buscha (1981:174), Schulz/Griesbach (1982:391), Drosdowski (1984:159-160), Jäger (1971:205), Flämig (1962:19), Buscha (1976:275), Kasper (1987:108-109) and Zaefferer (1987:284)

[57] As Truckenbrodt (2006a) points out, a matrix clause deletion analysis also suffers from the problem of recoverability. This problem is particularly clear in (228): How can the elided content be recovered from the context?

h. ... dann wären wir endlich allein. ≈ *reason-specifying*
then were we finally alone
'... then we'd finally be alone.'

Scholz's main criticism is that such consequents are actually incompatible with the particles that are prototypical for optatives. This is illustrated in (229a) versus (229b).

(229) a. Ach, wenn es **doch nur** mich getroffen hätte!
oh if it DOCH only me hit had
'Oh, if only I had been hit!'

b. Ach, wenn es (***doch nur**) mich getroffen hätte, wäre das halb so
oh if it DOCH only me hit had were that half as
schlimm gewesen.
bad been
'Oh, if only I had been hit, it would be half as bad.'
(Scholz 1991:9)

Scholz (1991) assumes two independent premises that lead to the same conclusion. First, discourse particles like *doch* only occur in unembedded clauses[58], indicating that (229a) should for this reason alone be considered unembedded. Second, she assumes that if a construction is elliptical, it should be possible to add the deleted material back in without complications, in contrast to what we see in (229b). Scholz concludes that optatives do not involve reconstruction of a consequent. She makes the same argument for *that*-optatives, based on the intuitions in (230).

(230) a. Ach, dass es **doch nur** mich getroffen hätte!
oh that it DOCH only me hit had
'Oh, if only I had been hit!'

[58] Scholz bases this assumption on Thurmair (1989:50), Altmann (1987:28). Scholz also states the more general assumption that discourse particles diagnose 'syntactic or at least functional' independence. This seems to be more correct than the assumption that they diagnose an utterance as unembedded, but then the presence of discourse particles cannot be taken to be an argument against the deletion hypothesis.

b. Ich wünschte, dass es **(*doch nur)** mich getroffen hätte.
I wish that it DOCH only me hit had
'I wish it had hit me.'

(Scholz 1991:9)

Unfortunately, Scholz's argument has several shortcomings, two of which I here address. First, there are conceptual problems with the argumentation; specifically, the premises cannot be accepted as they stand. On the one hand, it has by now clearly been falsified that discourse particles diagnose a construction as unembedded. Bayer (2001) and Coniglio (2009) argue that discourse particles are rather characterized as 'root phenomenon'[59]; Bayer (2001), and more extensively Coniglio (2009), show that such particles can occur in various embedded contexts, such as in the complements of non-factive predicates. On the other hand, the premise that it must be possible to re-enter elided material without any problem cannot be upheld either. English VP-Ellipsis, as illustrated in (231a), is a familiar example where the unelided construction is not composed of the elided structure plus the missing material, cf. (231b), but rather of a fusion of the two, cf. (231c).

(231) a. Sue met the president, and Mary did [~~meet the president~~], too.
b.?? Sue met the president, and Mary did meet the president, too.
c. Sue met the president, and Mary met the president, too.

One may analyze (231) as a case where the marked *did* licenses the deletion; by analogy, optatives might just be cases where the particles license the deletion (and must be omitted in the absence of deletion, where they are uninformative).

The second problem with Scholz's arguments is empirical. There are clear counter-examples to the generalization that optative *if*-clauses cannot be integrated into a matrix clause, shown in (232), which are natural occurrences from the internet.

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[59] A claim that I do not endorse but that I will not attempt to falsify either, as it is orthogonal to the present discussion.

(232) a. [Wenn ich **doch nur** könnte], **würde** ich mehr als einen Hund
if I DOCH only could would I more than one dog
zuhause haben!
at.home have
'If only I could, I would have more than one dog at home!'

b. Ach, [wenn ich **doch nur** könnte] **würde** ich sofort bei dir arbeiten.
oh if I DOCH only could would I immediately with you work
'Oh, if only I could, I would immediately start working with you.'

c. [Wenn ich **doch nur** könnte], **würde** ich sofort kommen.
if I DOCH only could would I immediately could
'If only I could, I would come immediately.'

Naturally, with respect to (232), it is worth ruling out an alternative explanation where the purported matrix clause in (232a-c) is a verb-first clause (with sentence-initial *würde* 'would'). An argument against this alternative explanation can be made, based on (233). If desiderative contexts allowed for verb-first clauses, omission of *dann* 'then' in the second clause of (233) should be possible. This indicates that the *if*-clause in (232a-c) really occupies the pre-verb-second position[60].

(233) Ich wünschte, ich könnte.*(Dann) **würde** ich sofort bei dir arbeiten.
I wish I could then would$_{V2}$ I immediately with you work
'I wish I could. I would immediately start working with you.'

Coming to an independent shortcoming of Scholz's discussion, Scholz seems to presuppose that *if*-optatives correspond to logical *if*-clauses (e.g. (234a)) rather than to non-logical *if*-clauses (e.g. (234b))[61].

(234) a. [If you had helped me], then my wish would have been fulfilled.

b. It would be nice [if you had helped me].

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[60] But see Axel & Wöllstein (2008) and Reis & Wöllstein (2010) who argue for true V1 clauses in German.

[61] Scholz does consider the option in (i), extracted from (228f) above. However, this is a case where the *if*-clause that may be non-logical is left-peripheral. As Pesetsky (1991) shows, such *if*-clauses do not exhibit one of the landmark features of non-logical *if*-clauses, namely the ban against Negative Polarity Items. This might indicate that again we are dealing with a normal logical *if*-clause after all.

i. [If you had helped me], then it would be good.

This is not as such a problem for Scholz's argument, as non-logical *if*-clauses are incompatible with optative particles as well, (235), but it is important to make this explicit.

(235) Es wäre schön, [$_{CP}$ wenn du mir (***doch nur**) geholfen hättest].
it were nice if you me DOCH only helped had
'It would be nice, if (*only) you had helped me.'

In any case, while Scholz's argument corroborates my own argument against matrix clause deletion, it is necessary to raise awareness of the conceptual problems and the existing counter-examples. I will now review Rifkin's arguments against matrix clause deletion in English and show that it also corroborates my own proposal.

#### 4.1.4.3 Further evidence against matrix clause deletion: Rifkin (2000)

Rifkin's (2000) arguments are based on the following premise: If *if*-optatives contain an unpronounced consequent, they should be able to do everything that a conditional can do. Rifkin shows that this is not the case and concludes that *if*-optatives do not contain a phonetically null matrix clause.

Rifkin's first argument is that *if*-optatives cannot be conjoined with regular conditionals, as shown in (236b), contrasting with (236a). It follows that *if*-optatives are not equivalent to conditionals with an unpronounced consequent.

(236) a. [If Sue had time, she would ski Mt. McKinley], and [if she had money, things would be good].
b.* [If Sue had time, she would ski Mt. McKinley], and [if **only** she had money].
(based on examples from Rifkin 2000; modified to create a minimal pair)

Crucially, this does not reflect a general prohibition against conjoined optatives, as shown in (237).

(237) [If **only** Meg had brought a corkscrew] and [if **only** Jim had made a decent salad].
(Rifkin 2000)

We can extend Rifkin's argument as follows. While he does not test his argument for non-logical conditional constructions, the following examples indicate that these behave the same way. (238a) shows that the ungrammaticality of (236b) (repeated in (238b)) is not due to a parallelism constraint on conjoining a logical conditional with a non-logical conditional. Example (238a) is wellformed in spite of the lack in parallelism (i.e. the first conjunct is a logical conditional and the second conjunct has a non-logical reading).

(238) a. [If Sue had time, she would ski Mt. McKinley], and [it would be good if she had money].

b.* [If Sue had time, she would ski Mt. McKinley], and [if **only** she had money].

Importantly, (239b) shows that an optative cannot be conjoined with a non-logical conditional either, while two non-logical conditionals can be conjoined, cf. (239a).

(239) a. [It would be good if Sue had time] and [it would be great if she had money].

b.?? [It would be good if Sue had time] and [if **only** she had money].

Rifkin's second argument against deletion is that *if*-optatives cannot be embedded under a higher matrix predicate, unlike regular conditionals, cf. (240b) versus (240a). Again, it follows that they are not equivalent to conditionals with unpronounced consequent.

(240) a. Avi thinks that [if it would snow, things would be good].

b.* Avi thinks that [if **only** it would snow].

(Rifkin 2000)

We can now extend Rifkin's second argument by showing that non-logical conditionals can be embedded without any problem, cf. (241).

(241) Avi thinks that [it would be good if it would snow].

A crucial observation of Rifkin's (2000) is that optative conditionals differ from *if*-optatives, as discussed in chapter 1. Example (242) shows that an optative conditional

can be conjoined with a non-optative conditional. In this regard, optative conditionals behave like regular conditionals.

(242) a. [If **only** Sue had money, things would be good], and [if she had time, she would ski Mt. McKinley].

(Rifkin 2000)

b. [If Sue had time, she would ski Mt. McKinley], and [if **only** she had money, things would be good].

(based on (242a))

Similarly, optative conditionals can also be embedded like regular conditionals, cf. (243).

(243) Avi thinks that [if only it would snow, things would be good].

(Rifkin 2000)

Rifkin's arguments can be easily extended to cover other languages, such as German, as shown in (244). Example (244a) illustrates an optative conditional embedded under *sagen* 'say'. This contrasts with the impossibility of embedding an independent *if*-conditional under *sagen* 'say', shown in (244b).

(244) a. **Kein vernünftiger Mensch**$_7$ würde jemals sagen, [dass er$_7$ die
no sane human would ever say that he the
Zeit zurückdrehen würde und alles anders machen würde,
time turn.back would and all different make would
wenn **er**$_7$ doch nur könnte].
if he DOCH only could

'**No sane person**$_7$ would ever say [that she$_7$ would turn back time and do everything differently, if only **she**$_7$ could].'

b. * **Kein vernünftiger Mensch**$_7$ würde jemals sagen, [wenn **er**$_7$
no sane person would ever say if he
doch nur die Zeit zurückdrehen und alles anders machen könnte].
DOCH only the time turn.back and all different make could

'[**No sane person**$_7$ would ever say [that if only **she**$_7$ could turn back time and do everything differently]].'

Before critically evaluating Rifkin's proposal, it can be pointed out that overall it corroborates my own proposal that optatives do not involve matrix clause deletion. The case of optative conditionals (i.e. conditionals that contain a seemingly optative antecedent) will have to be treated separately. One intuitive way of analyzing them might be to assume that the optative antecedent is parenthetical of sorts, i.e. (242), (243) and (244) involve simple embedding and conjunction of the main clause, which is parenthetically modified by an optative clause.

Having outlined Rifkin's arguments, concerns need to be raised with respect to the conclusion that Rifkin draws. Rifkin's data do not probe directly for the presence of unpronounced structure; a possible alternative explanation for Rifkin's findings is that contextually licensed deletion is infelicitous in conjunction or embedding structures. This concern is corroborated by intuitions such as (245) and (246). In (245b), conjoining the elliptical imperative from (245a) with a non-elliptical imperative seems degraded (as opposed to (245c)).

(245) *Context: The hearer just picked up a poisonous mushroom and wants to taste it.*

a. Don't!

b. ?* Don't, and wash your hands!

c. (?)Don't put it in your mouth, and wash your hands!

Similarly, in (246a), embedding the same elliptical imperative is degraded with respect to its overt counterpart in (246b).

(246) *Context: The hearer wants to pick up a white mushroom from John's desk.*

a. ?? Wait! John said don't!

b. (%)Wait! John said don't touch these mushrooms!

Finally, we notice that true answer fragments cannot be embedded under attitude predicates either, even though they are clearly elliptical, posing a more significant problem for Rifkin's theory. This is shown in (247c), which is the elliptic variant of

(247b), as shown in (247a). For some reason, true matrix clause deletion that gives rise to fragment answers is not possible in embedded answers.

(247) a. A: Under which circumstances would the party have been fun?
B: (The party would have been fun) if John had come.

b. A: Under which circumstances would the party have been fun?
B: Avi thinks that [the party would have been fun if John had come].

c. A: Under which circumstances would the party have been fun?
B: * Avi thinks that [if John had come].

While it is worth noting that Rifkin's proposal has these shortcomings, it is clearly compatible with my own proposal as outlined above.

Concluding this section, it can be observed that Rifkin (2000) raises an interesting puzzle, which can be outlined as follows. For some reason, an optative antecedent cannot be conjoined with a regular antecedent, as shown in (248a) versus (248b).

(248) a.* [If **only** Sue had money(,) and if she had time], she would ski Mt. McKinley.

b. [If Sue had money and if she had time], she would take up extreme skiing. (Rifkin 2000)

The data in (248) are puzzling independently of Rifkin's findings. As a baseline, both examples in (249) are grammatical, and we have seen that optative conditionals can be conjoined with regular conditionals, cf. (242).

(249) a. [If **only** Sue had money], she would ski Mt. McKinley.

b. [If she had time], she would ski Mt. McKinley.

Therefore, (249a) and (249b) should be able to act as the input for right-node raising / backward conjunction reduction, shown in (250). This indicates that (248) must be bad for reasons not connected to the elliptical / non-elliptical status of the optative *if*-clause.

(250) If **only** Sue had money, ~~she would ski Mt. McKinley~~,
and if she had time, she would ski Mt. McKinley.

For now, I conjecture that (250) is impossible (and thus (248) ungrammatical), because we cannot always do right-node raising across fundamentally different types of meaning (expressive vs. declarative meaning). While the optative conditional in the first conjunct is expressive (section 4.1.6), the non-optative conditional in the second conjunct is purely descriptive; I assume that this causes a conflict. These interactions between optative utterances and non-optative utterances raise another potential worry with respect to Rifkin's conclusions, namely that his examples merely reflect constraints on the combinability of the two types of meaning.

#### 4.1.4.4 Interim Summary

To summarize, I have addressed a fundamental question when dealing with optatives (and other types of unembedded clauses that have the morphosyntax of embedded clauses): Do they contain an unpronounced matrix clause or are they truly independent? I have argued for the latter. Both *if*-optatives and *that*-optatives are truly independent and do not involve matrix clause deletion. This can be shown based on a new argument that I construed, involving adverbial modification with a *because*-clause. I concluded that in German neither *if*-optatives nor *that*-optatives allow a verb-final (and thus integrated) *because*-clause to take scope over the positive evaluation that they express. This directly argues against a position where this positive evaluation is contributed by a matrix clause that is present at LF but unpronounced at PF. I have also critically evaluated Scholz (1991) and Rifkin (2000) and argued that, while their proposals have shortcomings that should not be neglected, they clearly corroborate my own proposal.

An interesting fact to be noted in this context (particularly as a follow up to the discussion of Rifkin 2000) is the following. While we find optative conditionals (i.e. conditionals that contain a seemingly optative *if*-clause antecedent), optative *if*-clauses cannot actually be part of a non-logical *if*-clause construction. This is shown in (251c+d), which contrast with (251a+b). While (251a+b) are instances of optative conditionals, (251c+d) are plainly ungrammatical.

(251) *Context: For years, John was living in an old house, not knowing that there was a gremlin in the old decorative box in his room that didn't seem to open. John never tried to pry it open. One day the gremlin came out and ate John's cat.*

a. *optative conditional with left-peripheral if-clause*

[If **only** John had opened that box], he would have noticed the gremlin in it.

b. *optative conditional with right-peripheral if-clause*

John would have noticed the gremlin in that box [if **only** he had opened it].

c. *right-peripheral non-logical if-clause*

It would have been good [if (?*__only__) John had opened that box].

d. *non-logical if-clause*

[If (?*__only__) John had opened that box], it would have been good.

It may superficially appear as a contradiction that optative antecedents cannot take the place of a non-logical *if*-clause even though I argued in detail that optative clauses should be analyzed on a par with non-logical *if*-clauses. However, this is actually expected under an analysis that assumes optatives to be truly independent. Assuming that optatives are independent utterances with a left-peripheral *EX* operator, and that they can be parenthetically linked to a matrix clause (which I mark by a purely descriptive symbol, '•'), we get the following patterns, corresponding to the facts in (251). The reason for the ungrammaticality of (251c+d) with an optative (i.e. (252c+d)) is that the parenthetical optative cannot serve as the subject matter for the matrix clause, i.e. the utterances in contain an incomplete matrix clause, as given in (253). This is not the case in (252a+b)

(252) a. [*EX* If **only** John had opened that box!] • He would have noticed the gremlin.

b. John would have noticed the gremlin. • [*EX* If **only** he had opened that box!]

c.* It would have been good. • [*EX* If **only** John had opened that box!]

d.* [*EX* If **only** John had opened that box!] • It would have been good.

(253) *out-of-the-blue*

\# It would have been good. (where *it* is non-referential!)

These facts are thus not only compatible with my analysis, but in a sense follow from my proposal. Concluding this section, I propose that optative clauses are clauses that contain a covert *EX* operator in their left periphery, which takes the CP as its complement. This captures the fact that optatives have properties of complement clauses whereas they seem to be truly independent (i.e. they do not involve matrix clause deletion). A summary is given in (254).

(254) *Sub-Claim 1+2: Optatives contain a null operator in their left periphery*

[$_{ExcP}$ *EX* [$_{CP}$ **Daß / Wenn** er doch nur rechtzeitig gekommen **wäre**!]]
that if he doch only in.time come were
'If only he had come in time!'

The following sections will now outline the properties of *EX* in some more detail.

### 4.1.5 Introducing *EX* – An emotive operator

This section is concerned with the core property of *EX* that it serves to express an emotive property of the speaker (similar to the *EXC* of Gutiérrez-Rexach 1996, a loose predecessor). We can formulate the sub-claim in (255).

(255) *Sub-Claim 3:*

An utterance of *EX(φ)* conveys that the speaker at the point of utterance has an emotion $\varepsilon$ (or at least an evaluative attitude $\varepsilon$) towards $\varphi$.

By assuming a uniform *EX* operator across different types of exclamations, I argue against accounts for insubordination that assume conventionalized form-to-speech-act assignments, as sketched by Zaefferer (2006:344), who posits (256).

(256) *Orphan theory of German verb-final root clauses*

The different force potentials of German verb-final root clauses derive from the semantics of some former matrix structures with speech act participant subject.

(Zaefferer 2006:344)

Zaefferer emphasizes that this is not a matrix clause deletion analysis, but rather a view under which the meaning of a potential matrix verb has grammaticalized into the force potential of an insubordinated clause. My discussion is an elaboration on Truckenbrodt's (2006b) informal rebuttal. The core issue with Zaefferer's view is that such grammaticalization should be relatively unconstrained. In contrast, exclamations that involve insubordinated clauses do typically show the constraint for being emotive that I discuss in this section. In brief, I propose that *EX* utterances can express meanings similar to what we find in (257), but not meanings similar to what we find in (258). This follows if *EX* is inherently emotive, but it is not predicted by a grammaticization view such as Zaefferer's.

(257) a. I would **prefer** it [if Kim were not informed].
b. It would **surprise** me [if she were able to accept].
(Pullum 1987, paraphrases mine, based on Williams 1974, Pesetsky 1991)
c. I **dislike** it [that Kim was not informed].

(258) a. I am **convinced** [that John left].
b. I **knew** [that there had been someone else in the room].
c. I would have **known** [if there had been someone else in the room].

I consider unembedded *that*-clauses, *if*-clauses and V1-clauses in German, which can be shown to be compatible with different functions (e.g. an optative use and a use as polar exclamative). In what follows, I show that none of the functions associated with exclamations are non-emotional and non-evaluative, i.e. we do not find exclamations that express a meaning like (258).

Consider first a sample of an ambiguous *that*-clause, given in (259a). Unembedded *that*-clauses in German are quite generally ambiguous between a (polar) exclamative reading, as in (259b) and an optative reading, as in (259c). The readings are differentiated by means of the propositional content (e.g. past tense orientation biases an exclamative

reading over an optative reading), the context (since typically exclamatives are factive[62] and optatives anti-factive, see chapter 5) and certain particles (see chapter 6). In a situation where we expected someone to oversleep but he didn't, it is appropriate to utter (259a) as an expression of surprise, (259b). By contrast, in a situation where we are worried that this person might have overslept, but we have no way to find out if he did, it is appropriate to utter (259a) as an expression of a wish or hope, (259c).

(259) a. Mein Gott, **dass** der nicht **verschlafen** **hat**! *that-exclamation*
my God that he not overslept has
*lit.* My God, that he didn't oversleep!

b. *polar exclamative paraphrase:* [It's shocking] that he didn't oversleep!

c. *optative paraphrase:* [I hope] that he didn't oversleep!

Similarly, V1-clauses with certain contrast markers (e.g. *tatsächlich* 'indeed', unstressed *doch*, the particle *glatt* 'outrightly'), (260a), have a polar exclamative reading, (260b), and an optative reading, (260c), see Scholz (1991)[63,64]. In a situation where we know that the female subject (e.g. Mary) would have (under certain circumstances, e.g. if we hadn't stopped her) given someone a book, I can express my shock by uttering (260a) to convey (260b). In contrast, in a situation where I know that she didn't give someone the relevant book, I can express that I wish she had done so by uttering (260a) to convey (260c).

(260) a. **Hätte** die dem doch tatsächlich das Buch gegeben! *V1-exclamation*
had$_{subj}$ she him doch indeed the book given
*lit.* Had$_{subj}$ she indeed given him the book!

(adapted from Scholz 1991:132-133, attributing the example to Norbert Fries)

b. *polar exc. reading:* [It's shocking that] she would have given him the book!

c. *optative reading:* [I wish that] she had given him the book!

---

[62] See Elliot (1971, 1974); Grimshaw (1979); Zanuttini & Portner (2000, 2003) for degree exclamatives.
[63] Note the difference in mood between (260b), which in the English translation requires the modal *would*, and (260c), which in the English translation has simple counterfactual past tense marking.
[64] German also has V1-degree exclamatives (Rosengren 1992, Brandner 2010), which I will not discuss.

For *if*-clauses we can construct different examples that only differ in the particles that they use and in their polarity[65]. Consider (261a); in a situation where I hope that someone will behave like an idiot (because I might end up getting the job that we're both applying for), I can use the optative in (261a) to express my desire. By contrast, in a different situation where someone is currently behaving like an idiot, I can use (261b) to express a negative evaluation[66]. A different situation is given in (261c), where the opposite of the expressed proposition is presupposed to be a fact, and (261c) is uttered to convey that this is remarkable in one way or another.

(261) a. Mensch, **wenn** der sich **nur** wieder blöd anstellt! *if-optative*
man if he self only again stupid behaves
*lit.* Man, if only he behaves stupidly again!

'[I sincerely hope that] he will behave like an idiot again!'

context/background: I don't know how he's going to behave this time.
expresses: It would be good for me [if he behaves like an idiot].

b. Mensch, **wenn** der sich **auch** wieder blöd anstellt! *if-adversative*
man if he self also again stupid behaves
*lit.* Man, if he also behaves stupidly again!

'[It is not good that] he's behaving like an idiot again!'

context/background: He's behaving like an idiot again.
expresses: I consider it bad [that he's behaving like an idiot].

c. Mensch, **wenn** der sich **nicht** wieder blöd anstellt! *if-exclamative*
man if he self not again stupid behaves
*lit.* Man, if he isn't behaving stupidly again!

'[It's remarkable that] he's behaving like an idiot again!'

context/background: He's behaving like an idiot again.
expresses: I consider it remarkable [that he's behaving like an idiot].

---

[65] Minimal pairs in this domain are difficult to construct and thus always seem slightly stilted, which should not distract from their admissibility.

[66] This interpretation and the paraphrase are very coarse – partly, because this is not the focus of this dissertation. What (261b) actually conveys is that something bad is happening to the person mentioned in subject position and that it is unsurprising given that person's bad behavior.

The fact that such utterances are inherently emotive and evaluative is reflected by the observation that the perceived emotion / evaluation cannot be easily canceled. To illustrate, in the polar exclamative in (262a), the surprise that is conveyed cannot be canceled, and in the optative in (262b), desirability cannot be canceled.

(262) a. Dass der nicht verschlafen hat! *polar exclamative*
that he not overslept has
'[It's shocking that] he didn't oversleep!'

... # das war sowieso zu erwarten.
that was anyway to be.expected
'That was to be expected anyway.'

b. Wenn der nur nicht verschlafen hat! *optative*
if he only not overslept has
'If only he didn't oversleep!'

... # das spielt jetzt auch keine Rolle mehr.
that plays now also no roll anymore
'That doesn't matter any more either.'

In contrast, the following examples show that regular *if*-clauses and *that*-clauses do not convey surprise or desirability in this way. (Note: I use *das* 'that' as s situational pronoun anaphoric to the circumstances denoted by the proposition expressed in the *that*-clause or *if*-clause.)

(263) a. Dass der nicht verschlafen hat, das war sowieso zu erwarten.
that he not overslept has that was anyway to be.expected
'That he wouldn't oversleep was to be expected anyway.'

b. Wenn der nicht verschlafen hat, das spielt jetzt auch keine Rolle mehr.
if he not overslept has that plays now also no role more
'If he didn't oversleep, that doesn't matter any more either now.'

The crucial evidence for the emotive / evaluative nature of exclamations stems from the fact that no exclamations seem to have a non-evaluative / non-emotive reading. This is shown in (264)-(266). Example (264a) is a constructed unembedded *that*-clause that expresses the proposition *that Bob left*. This can be uttered as it stands, but what is crucial

is that it cannot have one of the two non-emotive paraphrases in (264b+c), while the paraphrases in (264d-f) are possible. The most plausible use of (264a) is one where the speaker expresses surprise, (264d), but optative readings are also conceivable, (264e), as well as adversative readings, (264f). This follows if possible uses must be emotive or evaluative.

(264) a. Dass der Bob gegangen ist!
that the Bob left is
*lit.* That Bob left!

b.* *intended paraphrase 1:* It is **likely / unlikely** [that Bob left].
c.* *intended paraphrase 2:* I am **convinced** [that Bob left].

d.(✓ *most plausible paraphrase:* I am **surprised** [that Bob left].)
e.(✓ *conceivable paraphrase*[67]*:* I **hope** [that Bob left].)
f. (✓ *conceivable paraphrase*[68]*:* I am **disappointed** [that Bob left].)

An analogous example is given in (265). The most plausible readings for (265a) are, again, a surprise reading, as given in (265c), and an optative reading, as given in (265d). The non-emotive/non-evaluative reading in (265b) is impossible.

(265) a. Dass sonst noch jemand im Zimmer ist!
that else still someone in.the room is
*lit.* That someone else is in the room!

b.* *intended paraphrase:* I **know** [that someone else is in the room].

c.(✓ *most plausible paraphrase*[69]*:* I am **surprised** [that someone else is ...].)
d.(✓ *marginally possible*[70]*:* I **hope** [that someone else is in the room].)

---

[67] The *positive evaluation* paraphrase (*I hope...*) becomes more salient if we add *nur* 'only':
i. Oh, dass der Bob nur gegangen ist!
oh that the Bob only left is
'Oh, if only Bob has left!'

[68] The *negative evaluation* paraphrase (*I am disappointed...*) becomes more salient if we add *auch* 'also':
ii. Dass der Bob auch gegangen ist!
that the Bob also left is

[69] The surprise reading can be supported by a suitable interjection, as in (i):
i. Oh! Dass sonst noch jemand im Zimmer ist! (Ich dachte ich bin allein.)
oh that else still someone in.theroom is I thought I am alone

[70] The optative reading can be supported by a suitable interjection and a particle, as in (ii):
ii. Ach, dass nur sonst noch jemand im Zimmer ist!
oh that only else still someone in.the room is

Counterfactual *if*-clauses like (266a) are particularly marked, as the intended non-emotive / non-evaluative paraphrase in (266b) is impossible, and optative readings, (266b), are marginal whenever they are not supported by particles, as discussed in chapter 6.

(266) a.# Wenn sonst noch jemand im Zimmer wäre!
if else still someone in.the room were
*lit.* If someone else was in the room!

b.* *intended paraphrase:* I would **know** [if someone else was in the room].

c.(# *marginally possible:* I **wish** [that someone else was in the room].)

Based on these observations, I argue that exclamations must be evaluative or emotive and cannot express something that amounts to embedding a *that*-clause or *if*-clause under a non-emotive/non-evaluative predicate such as *know*, *unlikely* or *convinced.*

### 4.1.6 The *EX* operator is expressive

In the preceding section, I argued that *EX* is an emotive operator. This section is concerned with another core property of the *EX* operator, namely its expressive nature, as posited in (267) (cf. Kratzer 1999, Potts 2005, and related work).

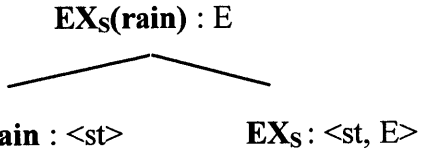
(267) *Sub-Claim 4:*

By uttering an utterance of *EX(φ)*, the speaker intends to *express* an emotion *ε*, rather than *describe ε*.

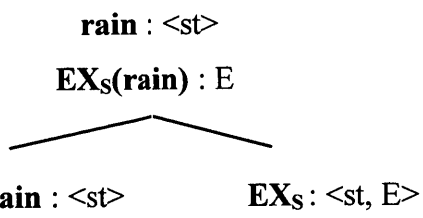
The idea is that *EX* combines with a truth-conditional argument (of propositional type <s,t>) and maps it onto felicity conditions; i.e. the resulting denotation is not truth-conditional, but rather 'felicity-conditional' (in the sense in which expressive meaning is sometimes assumed to constrain felicity of an utterance, cf. Kratzer & Matthewson 2009). More precisely, the idea is that application of *EX* to a proposition yields one-dimensional meaning of type *E* (defined as the type of *expressive meaning*). This is illustrated in (268a), constrasting with (268b).

(268) a. If only it rained!

b. *Option 1:*



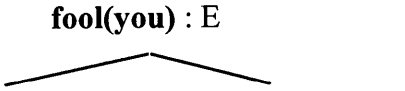

c. *Option 2 (rejected):*




Such onedimensionally expressive utterances have been argued for in Potts & Roeper (2006), who argue that expressive small clauses onedimensionally convey expressive meaning (of type *E*). This is illustrated for self-disapprobation expressive small clause in (269).

(269) a. *to myself, after making a mistake:* You fool!

b.




(Potts & Roeper 2006)

This section is concerned with arguing both against an account that assigns (onedimensional) truth-functional meaning to *EX* utterances, and against an account that assigns multidimensional meaning to *EX* utterances (with an expressive and a descriptive, truth-functional) component.

#### 4.1.6.1 On the non-truth-functionality of exclamations

Focusing on optatives, there are various arguments for the expressive nature of the *EX* operator. One of the first observation is that optatives are non-truth-functional utterances. They cannot be denied in the same way in which an assertion can be denied. Consider first an assertion in the indicative, (270), and then an assertion in the subjunctive, (271). As indicated, in both cases it is possible to deny or confirm the asserted statement.

(270) A: Otto kommt. – B: ✓ Das stimmt nicht. / ✓ Das stimmt.
Otto comes that is.true not that is.true
'Otto is coming.' 'That's false.' 'That's true.'

(271) A: Otto wäre gekommen (wenn du ihn nicht beleidigt hättest).
Otto were come if you him not insulted had
'Otto would have come (if you hadn't insulted him).'

B: ✓ Das stimmt nicht. / ✓ Das stimmt.
that is.true not that is.true
'That's false.' 'That's true.'

Optatives do not allow for such denial or confirmation, as shown in (272) and (273) (cf. Scholz 1991, Rifkin 2000). (I also include the judgmental expression *Finde ich nicht* 'I don't agree' in (273), (275) and (277), which would seem suitable in this context.)

(272) A: Wenn Otto nur kommt! – B: # Das stimmt nicht. / # Das stimmt.
if Otto only comes that is.true not that is.true
'If only Otto is coming!' 'That's false.' 'That's true.'

(273) A: Wenn Otto nur gekommen wäre!
if Otto only come were
'If only Otto had come!'

B: # Das stimmt nicht. / # Das stimmt. / # Finde ich nicht.
that is.true not that is.true find I not
'That's false.' 'That's true.' 'I don't agree.'

This cannot be due to factors such as the fact that (272) and (273) contain *if*-clauses, as shown by (274) and (275), which can be denied and confirmed.

(274) A: Es ist besser, wenn Otto kommt.
it is better if Otto comes
'It is better if Otto comes!'

B: ✓ Das stimmt nicht. / ✓ Das stimmt.
that is.true not that is.true
'That's false.' 'That's true.'

(275) A: Es wäre besser, wenn Otto gekommen wäre!
it were better if Otto come were
'It would be better if Otto had come!'

B: ✓ Das stimmt nicht. / ✓ Das stimmt. / ✓ Finde ich nicht.
that is.true not that is.true find I not
'That's false.' 'That's true.' 'I don't agree.'

Similarly, answer fragments can be denied or confirmed (by a third party), indicating that this is not the problem either.

(276) A: Was ist besser? – B: Wenn Otto kommt.
what is better if Otto comes
'What's better?' 'If Otto comes.'

C: ✓ Das stimmt nicht. / ✓ Das stimmt.
that is.true not that is.true
'That's false.' 'That's true.'

(277) A: Was wäre besser (gewesen)? – B: Wenn Otto gekommen wäre!
what were better been if Otto come were
'What would be / have been better?' 'If Otto had come!'

C: ✓ Das stimmt nicht. / ✓ Das stimmt. / ✓ Finde ich nicht.
that is.true not that is.true find I not
'That's false.' 'That's true.' 'I don't agree.'

The examples in (278) and (279) show that *that*-optatives cannot be denied or confirmed either. Given that the modified clause expresses a wish, I also include *Ich nicht* 'I don't' with the intended meaning of 'I don't wish for that.' / 'I don't want that.'

(278) A: Dass Otto nur rechtzeitig kommt!
that Otto only in.time comes
'If only Otto comes in time!'

B:#Das stimmt nicht. / # Das stimmt. / # Ich nicht.
that is.true not that is.true I not
'That's false.' 'That's true.' 'I don't.'

(279) A: Dass Otto nur rechtzeitig gekommen wäre!
that Otto only in.time come were
'If only Otto had come in time!'

B:#Das stimmt nicht. / # Das stimmt. / # Ich nicht.
that is.true not that is.true I not
'That's false.' 'That's true.' 'I don't.'

It is worth noting that polar exclamatives cannot be denied or confirmed either, as shown in (280), where *Mich nicht* 'Not me' is intended to mean 'It doesn't surprise me.'.

(280) A: Dass der Hans heute nicht verschlafen hat!
that the Hans today not overslept has
'[It's shocking that] Hans didn't oversleep today!'

B:#Das stimmt nicht. / # Das stimmt. / # Mich nicht.
that is.true not that is.true me not
'That's false.' 'That's true.' 'Not me.'

As shown in (281) and (282), corresponding paraphrases can be denied and confirmed.

(281) A: Es ist überraschend, dass der Hans heute nicht verschlafen hat!
it is surprising that the Hans today not overslept has
'It's shocking that Hans didn't oversleep today!'

B:✓ Das stimmt nicht. / ✓ Das stimmt.
that is.true not that is.true
'That's false.' 'That's true.'

(282) A: Es überrascht mich, dass der Hans heute nicht verschlafen hat!
it surprises me that the Hans today not overslept has
'It's shocking that Hans didn't oversleep today!'

B:✓ Mich nicht.
me not
'Not me.'

It can be inferred that optatives and polar exclamatives are not assertions, i.e. they are not truth-functional statements. I argue that, in fact, they are *expressive utterances* (as opposed to descriptive utterances). In terms Potts & Roeper (2006), I propose that the role of *EX* is to remove its complement from the level of descriptive at-issue meaning and shift it to the level of expressive meaning, i.e. an exclamation does not have descriptive content, (283b), but rather expressive content, (283c).

(283) a. If only I were rich!
b. *descriptive content (informal paraphrase):* Ø
c. *expressive content (informal paraphrase):* It would be good if I were rich.

Note that at this point, the observed facts are compatible with a view where the descriptive content of the optative utterance is truth-conditional, but simply not of type <s,t> (or t), as posited by Biezma (2011a), who treats optatives as <st,t> type expressions. It is thus worth turning to further arguments for the expressive nature of *EX* utterances

#### 4.1.6.2 Non-Embeddability: A Hallmark of Expressive Content and Exclamations

Showing that optatives and polar exclamatives cannot be affirmed or denied by a hearer supports a view under which such utterances are *independent* in the sense of Potts (2005, 2007), see also McCready (2009), i.e. such utterances contribute content at a level

different from descriptive at-issue meaning. Another hallmark of expressive meaning is non-embeddability, which is connected to Potts's criteria of *nondisplaceability* and *perspective dependence* – expressive meaning is tied to an utterance situation and to somebody's perspective (which is typically the speaker's perspective).

Potts & Roeper (2006) present data like (284b) and (285b) to argue that 'expressive small clauses' are onedimensional expressive utterances.

(284) a. *towards myself:* You fool!
b.* I consider [you fool] / [me fool].
(cf. Potts & Roeper 2006)

(285) a. (What,) Me worry?
b.* I wonder / doubt [me worry].
(cf. Potts & Roeper 2006)

Rifkin's (2000) example in (286b) shows parallel behavior: *if*-optatives, on a par with expressive small clauses, cannot be embedded.

(286) a. If only it would snow!
b.* Avi thinks that [if only it would snow].
(cf. Rifkin 2000)

This issue deserves some further discussion, which the rest of this section is devoted to. First of all, we have already observed that answer fragments, which are clearly truth-functional and not expressive, cannot be embedded either, as repeated in (287).

(287) a. A: Under which circumstances would the party have been fun?
B: (The party would have been fun) if John had come.
b. A: Under which circumstances would the party have been fun?
B: Avi thinks that [the party would have been fun if John had come].

c. A: Under which circumstances would the party have been fun?
B: * Avi thinks that [if John had come].

The second issue that arises is that we have already seen that optative conditionals can be embedded, as in (288a).

(288) a. Avi thinks that [if **only** it would snow, things would be good].
b.* Avi thinks that [if **only** it would snow].
(Rifkin 2000)

A third issue that needs to be addressed is the following fact. A uniform approach to exclamations may be threatened by the observation that degree exclamatives can apparently be embedded (cf. Elliot 1971, Grimshaw 1979, Zanuttini & Portner 2000, 2003, and many others); Abels (2010) shows that the range of embedding constructions is rather large, as illustrated in (289). While an extension of the *EX*-Operator Approach to degree exclamatives is not in the scope of this dissertation, the possibility of such an extension seems conceptually desirable.

(289) a. Gun nuts can't even wait for the shooter's barrel to cool off before they jump in to **assert** [how very, very important it is that everybody get to have as many guns of any variety that they desire].
b. People shake their heads and **go on about** [what a great tragedy the whole situation is].
c. Now its time for a BBQ with Beer, Friends and lots of **lies about** [what a bad ass I am].
(Abels 2010:146,153,155, crediting online sources; emphasis and brackets mine)

Let me first discuss the first two issues, i.e. the question to what extent *if*-optatives differ from other utterances in that they cannot be embedded, and the question to what extent optative conditionals are 'embedded optatives'. I will then proceed to the third issue.

The logic that underlies the idea that expressive meaning cannot be embedded is that expressive meaning is commonly assumed never to be an argument with respect to functional application (Potts 2005, 2007), as shown in (290). Crucially, it follows from (290i-v) that there is no semantic type that has an expressive type in its domain. This entails that expressive meaning can never be in the scope of anything else in a clause – it cannot be truly integrated[71].

(290) i. *e* and *t* are regular types.
ii. *E* is an expressive type.
iii. If *a* and *b* are regular types, then <*a*,*b*> is a regular type.
iv. If *a* is a regular type, then <*a*,*E*> is an expressive type.
v. Nothing else is a type.
(Potts & Roeper 2006)

If we turn to German, we observe that *if*-optatives indeed cannot be truly integrated into another construction. Quite generally, *if*-clauses in a conditional can occupy the pre-verb-second position, thus satisfying the verb second requirement (that the position preceding the fronted verb must be filled). Notably, optative antecedents cannot do so, as observed by Scholz (1991). This is shown in (291b), for the *if*-optative in (291a). Notably, appositives, which Potts (2005) analyses as expressions that yield multidimensional meaning, do not lead to ill-formedness, (291c). The observation in (291b) thus shows that the application of *EX* to a proposition in an optative removes the proposition from the level of descriptive content (mapping it to the expressive level), confirming the unembeddability of optative clauses.

(291)a. Ach, wenn es **doch** **nur** mich getroffen hätte!
oh if it DOCH only me hit had
'Oh, if only I had been hit!'

[71] Note that I assume that the *EX* operator combines with a scale and a proposition and yields expressive meaning, i.e. it requires an extension of (290) to include <*a*,<*st*,*E*>> type expressions; however I concur in that there are no <*E*,*a*> type expressions.

b. Ach, wenn es (***doch nur**) mich getroffen hätte, **wäre** das halb so
oh if it DOCH only me hit had were that half as

schlimm gewesen.
bad been

'Oh, if only I had been hit, it would be half as bad.'

(Scholz 1991:9)

c. Ach, wenn es mich getroffen hätte, was ich mir sehr wünsche,
oh if it me hit had which I me very wish

**wäre** das halb so schlimm gewesen.
were that half as bad been

'Oh, if I had been hit, which I wish very much, it would be half as bad.'

We now have to address the residual question of how to deal with the exceptions to this generalization (which one may call *Scholz's unembeddability generalization*, see above). First, I have observed that there are rare instances of optative antecedents that are truly integrated into an optative conditional (meaning that they can occupy the pre-verb second position), one of which is given in (292) (a natural occurrence, found on google).

(292) [Wenn ich **doch nur** könnte], **würde** ich sofort kommen.
if I DOCH only could would I immediately could
'If only I could, I would come immediately.'

Second, it has been suggested that optative conditionals (i.e. conditionals that appear to contain an optative antecedent) can be truly embedded, as observed by Rifkin (2000) for English, shown in (293).

(293) **Kein vernünftiger Mensch**$_7$ würde jemals sagen, [dass er$_7$ die
no sane human would ever say that he the

Zeit zurückdrehen würde und alles anders machen würde,
time turn.back would and all different make would

wenn **er**$_7$ doch nur könnte].
if he DOCH only could

'**No sane person**$_7$ would ever say [that she$_7$ would turn back time and do everything differently, if only **she**$_7$ could].'

To deal with these counter-examples, I propose that such clause actually involve either a parenthetical use of an *if*-optative or a construction that I will call the *minimal sufficiency conditional* in chapter 6. These minimal sufficiency conditionals are conditionals that do not contain an *EX*-operator, but contain *nur* 'only' in a purely presuppositional reading. For now, I postpone this discussion to chapter 6, and I would rather like to emphasize the markedness of the counter-examples.

First, consider a number of optative conditionals from Asarina & Shklovsky (2008) and Rifkin (2000).

(294) a. If only I was rich (now), I would have a Porsche.
b. If only it rained tomorrow, my roses would bloom.
(Asarina & Shklovsky 2008:2+9)
c. If only I had beaten Kasparov, I would have won 10000 dollars.
d. If only I were rich, I would travel around the globe.
(Rifkin 2000)

In German, none of these examples allows for the purported optative clause to be truly integrated into the matrix clause, in the sense that it could fill the pre-verb second position.

(295) a. Wenn ich (doch) nur reich wäre, *(dann) hätte ich einen Porsche.
if I doch only rich were then had I a Porsche
'If only I was rich, *(then) I would have a Porsche.'
b. Wenn es morgen (doch) nur regnen würde, *(dann) würden meine
if it tomorrow doch only rain would then would my
Rosen blühen.
roses bloom
'If only it would rain tomorrow, *(then) my roses would bloom.'

c. Wenn ich Kasparov (doch) nur geschlagen hätte, *(dann) hätte
if I Kasparov doch only beaten had then had

ich 10000 Dollar gewonnen.
I 10000 dollars won

'If only I had beaten Kasparov, *(then) I would have won 10000 dollars.'

d. Wenn ich (doch) nur reich wäre, *(dann) würde ich um die
if I doch only rich were then would I around the

Welt reisen.
world travel

'If only I were rich, *(then) I would travel around the globe.'

In fact, the non-integration of optative antecedents must be even stronger than indicated by the punctuation in (295). As shown in (296), where '—' marks a complete intonational break, the optative antecedent must be followed by a rather long intonational break. This is not necessary in regular conditionals.

(296) a. Wenn ich (doch) nur reich wäre! ???(—) Dann hätte ich einen Porsche.
if I doch only rich were then had I a Porsche
'If only I was rich ???(—) then I would have a Porsche.'

b. Wenn ich (doch) nur reich wäre! ???(—) Ich hätte einen Porsche.
if I doch only rich were I had a Porsche
'If only I was rich ???(—) then I would have a Porsche.'

I propose that apparent optative conditionals as in (294)-(296) typically involve two separate clauses, namely an *if*-optative and an (unconnected) implicitly conditionalized declarative clause (see also Kyriakaki 2007, 2008, 2009, who shares the core idea that the overt 'antecedent' and the overt 'consequent' are actually not connected). This view is supported by Rifkin's (2000) insight that *if*-optatives can co-occur with a second overt antecedent, (297), something that is impossible in a regular conditional, (298).

(297) a. If only I had gotten there sooner ... if I had, I could have saved him.

b. If only I had gotten there sooner ... because if I had, I could have saved him.
(Rifkin 2000)

(298) a.* If I had gotten there sooner … if I had, I could have saved him.
b.* If I had gotten there sooner … because if I had, I could have saved him.
(Rifkin 2000)

Rifkin's observation follows from my proposal. I assume that the second overt antecedent is the implicit antecedent of an unconnected declarative, which in his examples is simply made overt. In other words, I assume that the examples in (294) simply have the structure in (299).

(299) a. If only I was rich (now)! (Because if I was rich,) I would have a Porsche.
b. If only it rained tomorrow! (Because if it did,) my roses would bloom.
c. If only I had beaten Kasparov! (Because if I had,) I would have won 10000 dollars.
d. If only I were rich! (Because if I were,) I would travel around the globe.

Returning to (292), repeated in (300a), which I analyze as a *minimal sufficiency conditional* (see chapter 6), it's markedness becomes apparent when we modify it slightly; for instance, if we drop *nur* 'only' but keep *doch*, the construction degrades significantly, shown in (300b). This would be unexpected if (300a) was an unmarked optative construction, given that, for instance, (300c) is well-formed.

(300)a. [Wenn ich **doch** **nur** könnte], **würde** ich sofort kommen.
if I DOCH only could would I immediately could
'If only I could, I would come immediately.'

b.?*[Wenn ich **doch** könnte], **würde** ich sofort kommen.
if I DOCH could would I immediately could
'If only I could, I would come immediately.'

c. [Wenn ich **doch** könnte]! Ich **würde** sofort kommen.
if I DOCH could I would immediately could
'If only I could! I would come immediately.'

We can thus conclude that true optatives are unembeddable and apparent cases of embedded *if*-optatives can be explained either as some type of conditional (which I will come back to in chapter 6) or as an illusion, where two unconnected clauses appear to be connected.

The third concern that I raised above is that, of course, degree exclamatives have often been argued to be embeddable, which seems to entail that an analysis of optatives and polar exclamatives as expressive *EX* utterances would fail to extend to such constructions. Alternatively, this observation may even be taken to challenge the idea that optatives are exclamative-like, as optatives are unembeddable whereas the most familiar type of exclamatives seems to be embeddable. In what follows, I briefly show that degree exclamatives are not always embeddable and that those cases that are embeddable are the ones that have the syntax of embedded clauses to begin with. It is thus desirable to assume that such 'embedded degree exclamatives' are actually simply 'embedded wh-clauses' (without exclamative properties) that contain specialized lexical items, which carry exclamative implicatures. Such a view is developed by Castroviejo Miró (2008) and Sæbø (2010) and I refer the readers to these authors for details.

German has a comparatively broad paradigm of degree exclamatives, illustrated in (301). Examples (301a+b) are unambiguously exclamatives, as they contain vacuous *nicht* 'not', which is a hallmark of German *wh*-exclamatives and cannot occur in questions (see Roguska 2007 for discussion). Examples (301c+d) are unambiguously exclamatives when they carry an exclamative accent (on the subject or on the gradable predicate) and contain one of the exclamative-specific particles *aber* (literally 'but') and *vielleicht* (literally 'maybe'), cf. Rosengren (1992).

(301) a. Wen der nicht alles kennt! *wh $V_{fin}$ exclamative*
who he not all knows
'How many people he knows!' (*lit.* 'Who all he doesn't know!')

b. Wen kennt der nicht alles! *wh V2 exclamative*
who knows he not all
'How many people he knows!' (*lit.* 'Who all doesn't he know!')

c. Ist die (aber/vielleicht) schön! *V1 exclamative*
is she but/maybe beautiful
'Boy, is she beautiful!' (*lit.* 'Is she (but/maybe) beautiful!')

d. Die ist (aber/vielleicht) schön! *V2 exclamative*[72]
she is but/maybe beautiful
'Boy, is she beautiful!' (*lit.* 'She is (but/maybe) beautiful!')

(Rosengren 1992:266, 272, 281)

What we observe is that only a subtype of exclamatives can be embedded, namely the one that have the structure of prototypical embedded clauses, (302a). Other types of degree exclamatives can not be embedded, as shown in (302b-d). This corroborates the idea that possibly true exclamations cannot be embedded, as proposed by Rifkin (2000), who also seeks to unify optatives and exclamatives (see also Quirk et al. 1985).

(302) a. Hans ist überrascht, wen der nicht alles kennt.
Hans is surprised who he not all knows
'Hans is surprised who all he knows.'

b.* Hans ist überrascht, wen kennt der nicht alles.
Hans is surprised who knows he not all
'Hans is surprised who all he knows.'

c.* Hans weiß / glaubt / ist überrascht ist die aber/vielleicht schön.
Hans knows believes is surprised is she but/maybe beautiful
'Hans is surprised who all he knows.'

d.* Hans weiß / glaubt / ist überrascht die ist aber/vielleicht schön.
Hans knows believes is surprised she is but/maybe beautiful
'Hans knows / believes / is surprised how beautiful she is.'

Unsurprisingly, we find a parallel behavior with polar exclamatives. On the one hand, *dass*-polar exclamatives, which have the shape of an embedded clause, can apparently be embedded, (303a), whereas V1-polar exclamatives are unembeddable, (303b). Again, I argue that apparent embedded exclamatives are not exclamative to begin with and rather

[72] Brandt (2010) differs from Rosengren (1992) in that Brandt only views the V1-variants as exclamatives, and analyzes the V2-variants as declaratives with a surprise implicature.

achieve an exclamative effect (if they do) by virtue of lexical items that they contain and/or by virtue of their similarity to corresponding exclamatives.

(303) a. (Hans ist überrascht,) dass du doch tatsächlich an mich gedacht hast.
Hans is surprised that you doch indeed at me thought have
'Hans is surprised that you really remembered me.'

b. (*Hans ist überrascht,) hast du doch tatsächlich an mich gedacht.
Hans is surprised have you doch indeed at me thought
'Hans is surprised that you really remembered me.'

I conclude that true exclamations are unembeddable, which supports a view that assumes an expressive *EX* operator (historically preceded by Gutiérrez Rexach's 1996 *EXC* and by Kyriakaki's 2007, 2008, 2009 exclamative wish operator) in all types of exclamations.

#### 4.1.6.3 A brief review of other markers of expressive meaning

Let us briefly review other markers of expressive meaning, according to Potts (2005, 2007) (see also McCready 2009). First of all, Potts proposes that it is impossible to state what expressive elements actually mean (his notion of *descriptive ineffability*). Optatives do seem to comply with this observation. In the same way in which we are hardpressed to say what *damn* means (e.g. (304b) does not satisfactorily paraphrase (304a)), we are hardpressed to say what optative utterances mean. We know that they express a wish or at least a positive evaluation, but neither (305b) nor (305c) seems to satisfactorily paraphrase (305a), indicating that this observation alone does not equip us with an understanding of what (305a) means.

(304) a. **That damn** John is now coming to my birthday party.

b. **I dislike John and** he is now coming to my birthday party.

(305) a. **If only** he were handsome!

b. **I wish** he were handsome.

c. **It would be good if** he were handsome.

Potts also argues that expressive elements have the property of *immediacy*, meaning that uttering them alone is sufficient to fulfill one's communicative goal. Immediacy clearly holds in exclamations, given that uttering an optative and polar exclamative directly expresses desire and surprise respectively. It is not necessary for the hearer to respond in any way, which is necessary in response to assertive utterances.

Finally, Potts observes that expressive meaning is strengthened under repetition (*repeatability*). While this is not an exclusive property of expressives (Kai von Fintel, p.c.), shown in (306), optatives do exhibit this property, consistent with a view that treats them as expressive utterances.

(306) A: He doesn't know anything about semantics.
B: But he does! He does! He does!

Example (307) shows naturally occurring optatives from forum discussions and reviews on *Yelp* (which I anonymized by changing names and omitting the URLs). In each case, repetition of an entire utterance is possible, strengthening the expression of desire.

(307) a. A: I know you, you're Bob, right? – B: If only I were, if only I were.
b. If only they knew ... Christ, if only they knew ...
c. If you only knew, if you only knew.

Another example from a 1913 novel is given in (308).

(308) "If he only knew—if he only knew!" he muttered to himself. "He must know soon, or there won't be half the pleasure in it for me."
(Frank Williams. 1913. *The Wilderness Trail.* New York: Grosset and Dunlap.)

I take these facts to corroborate the proposal that optatives (and polar exclamatives) are expressive utterances, which follows if the *EX* operator has the function of shifting its argument from the level of descriptive at-issue content to the level of expressive content. In the following sections, I discuss the semantic content of *EX*.

### 4.1.7 The *EX* operator is scalar

I argue that another core property of *EX* is its scalar nature, i.e. *EX* conveys that the denoted proposition has a particular rank on a relevant scale, cf. (309). An alternative view would maintain that the optative operator expresses (absolute) positive evaluation.

(309) *Sub-Claim 5:*

When uttering an utterance of *EX(φ)*, in order to express an emotion $\varepsilon$, the emotion $\varepsilon$ is connected to a scale (in the case of optatives: a preference scale).

In the present case, evidence for scalarity can be derived from scalar implicatures, as discussed by Zanuttini & Portner (2003). Zanuttini & Portner (2003) argue that degree exclamatives convey information that is noteworthy or surprising; in their analysis, this follows from the assumption that the denoted proposition is at a scalar extreme. Evidence for such a scalar implicature (and thus for scalarity) can be gained from examples such as (310). Following a declarative statement, an implied extreme status of the expressed proposition can be canceled, (310b). This is not possible after a *wh*-exclamative, (310a).

(310)a. ?? How very cute he is! – though he's not extremely cute.

b. He's quite cute! – though not extremely cute.

(Zanuttini & Portner 2003:47)

This diagnostic has been applied to Icelandic degree exclamatives in Jónsson (2010), as given in (311a).

(311)a. Rosalega er hann fljótur! # það kemur þó ekki á óvart.
extremely is he quick that comes yet not in surprise
'How extremely quick he is! That is not surprising, though.'

b. Hann er rosalega fljótur! það kemur þó ekki á óvart.
he is extremely quick that comes yet not in surprise
'He is extremely quick. That is not surprising, though.'

(Jónsson 2010)

Brandner (2010) applied it to German V1 degree exclamatives, (312a).

(312) a. Spricht der ein Deutsch! – # Aber so gut ist es auch wieder nicht.
speaks he a German but so good is it also again not
'What a German he speaks – but it is not really good'

b. Er spricht ein gutes Deutsch! – Aber so gut ist es auch wieder nicht.
he speaks a good German but so good is it also again not
'He speaks a good German – but it is not really good'

(Brandner 2010:94)

We can now apply this diagnostic to optatives. First we can show that optatives have a goodness implicature (or entailment), which is why (313a) is illformed[73].

(313) a. Ach, hätte ich doch kein Trinkgeld gegeben! – # Aber das wäre schlecht.
oh had I doch no tip given but that were bad
'If only I hadn't left a tip. – That would be bad though.'

b. Ich wünschte ich hätte kein Trinkgeld gegeben! – Aber das wäre schlecht.
I wish I had no tip given but that were bad
'I wish I hadn't left a tip. – That would be bad though.'

Crucial further evidence for scalarity can be gained from (314). The contrast between the illformed (314a) and the wellformed (314b) can be explained in terms of the assumption (similar to Zanuttini & Portner's) that the denoted proposition must be relatively high on the speaker's preference scale. If the speaker is merely content (but not necessarily satisfied) if the denoted proposition holds, it is possible to follow up with a wish for more, as given in (314b). This is not always possible in the case of the optative in (314a), indicating that the denoted proposition must (at the point of utterance) be desirable to a substantial extent.

[73] Changing *aber das wäre schlecht* 'but that would be bad' to *aber das wäre schlecht gewesen* 'but that would have been bad' does not alter the reported judgments.

(314)a. Ach, wenn ich doch den Mindestlohn bezahlt bekommen würde!
oh if I doch the minimal.wage paid get would
'Oh if only I received the minimal wage.'

– # Aber ich will natürlich eigentlich ein tolles Einkommen.
but I want naturally actually a great income
'But naturally I actually want a great income.'

b. Ich wäre zufrieden, wenn ich den Mindestlohn bezahlt bekommen würde.
I were content if I the minimal.wage paid get would
'I would be content if I received the minimal wage.'

– Aber ich will natürlich eigentlich ein tolles Einkommen.
but I want naturally actually a great income
'But naturally I actually want a great income.'

However, we can show that the absolute desirability of the expressed proposition that we observe in (314a) is an implicature, as opposed to an entailment, of optative utterances. If we add *wenigstens* 'at least' (see chapter 6.3), this implicature disappears, as shown in example (315).

(315) Ach, wenn ich doch wenigstens den Mindestlohn bezahlt bekommen würde!
oh if I doch at.least the minimal.wage paid get would
'Oh if only I received at least the minimal wage.'

– Aber ich will natürlich eigentlich ein tolles Einkommen.
but I want naturally actually a great income
'But naturally I actually want a great income.'

Similarly, we can observe that optatives do not always express a wish for the best possible scenario (i.e. the most desirable situation). This is shown in (316). Imagine I have broken my right arm, and I am right-handed. Clearly, in the most desirable situations I haven't broken any arm; yet (316) is possible[74]. In the same situation, scalar statements like (317), which involve a comparison of situations, are possible, whereas absolute statements like (318), which do not involve such a comparison, are odd. This follows if optatives express that the denoted proposition is sufficiently desirable to be

[74] Thanks to David Pesetsky, who suggested an example of this type to me.

satisfactory in some relevant sense (accounting for (313a) and (314a)), but it is not necessarily the best possible case (accounting for (315) and (316))[75].

(316) *Context: I broke my right arm and I'm right-handed*
Oh, if only I had broken my left arm!

(317) a. It would **be preferable** [if I had broken my left arm].
b. It would **be better** [if I had broken my left arm].
c. I would **prefer** it [if I had broken my left arm].

(318) a.# It would **be great/good/nice/ideal** [if I had broken my left arm].
b.# It would **be wonderful** [if I had broken my left arm].
c.# It would **be a good thing** [if I had broken my left arm].

We can thus conclude that optatives involve scalarity just as much as other exclamatives do, motivating a view under which exclamations always involve some scale or other. I implement this by assuming that *EX* takes a scalar argument and quantifies over scalar alternatives.

To finish up this section, we can point out (in view of a uniform *EX*-based analysis of optatives and polar exclamatives) that the scalar diagnostic also applies to polar exclamatives. Again, canceling the *surprise effect* in (319a) is not possible, due to the inherent scalarity of the expression, whereas this is possible in (319b).

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[75] A natural question that arises here is whether degree exclamatives sometimes have a meaning that does not involve an *extreme* degree. Possibly the contrast between (i) and (ii) intuitively instantiates a possible distinction between slight surprise (or even simple doubt), in (i), and extreme surprise, in (ii).

i. Was du nicht sagst!
what you not say
'What you are saying!' ⇒ 'I'm somewhat intrigued by what you're saying!'

ii. Was du für Geschichten kennst!
what you for stories knows
'What fascinating stories you know!' ⇒ 'Im surprised at all the stories that you know!'

(319) a. Dass der heute gar keinen Kater hat!
that he today absolutely no hangover has
'[It amazes me] that he doesn't have a hangover at all today!'

– … # was natürlich nicht überraschend ist.
what naturally not surprising is
'which of course isn't surprising.'

b. Der hat heute gar keinen Kater!
he has today absolutlely no hangover
'He doesn't have a hangover at all today!'

– … was natürlich nicht überraschend ist.
what naturally not surprising is
'which of course isn't surprising.'

These data are thus consistent with a view under which both optatives and polar exclamatives contain *EX*, an inherently scalar element.

### 4.1.8 On the role of interjections and other prototypical elements

As Scholz (1991) observes, optatives prototypically contain particles, such as *doch*, *nur* 'only' and *wenigstens* 'at least' in (320a). Alternatively, they can contain interjections, such as *ach* 'oh' or *oh* 'oh', as in (320b). Notably, they can also be licensed marginally by verum focus, as in (320c) (Rosengren 1993). Optatives without any of these prototypical markers are generally deviant, (320d), but it is possible to find exclamations that seem acceptable without any of these prototypical features and express a positive evaluation, as in (321), indicating that none of these features is absolutely obligatory.

(320) a. Wäre ich **doch** / **nur** / **wenigstens** REICH! *typical particle*
were I doch only at.least rich

b. **Ach,** wäre ich REICH! *typical interjection*
oh were I rich

c. **WÄRE** ich reich! *typical intonation*
were I rich

d.# Wäre ich REICH! *no marking whatsoever*
were I rich
'If only I were rich!'

(321) a. Wenn ich deine Statur hätte!
if I your build had
'[Oh!] If [only] I had your build!'

(adapted from Evans 2007, most natural stress marking is indicated by me)

b. Rico schaute die Blumen an und dachte:
'Rico looked at the flowers and thought:'

" Wenn Stineli diese sehen könnte!"
if Stineli these see could
'If Stineli could see these!'

und stand lange unbeweglich am Zaun.
'and stood at the fence for a long time without moving.'

(Johanna Spyri (1878): *Heimatlos*. Discussed in Grosz 2011)

I will discuss the role of particles in exclamations in chapter 6. However, in the present section it is worth briefly addressing the role of interjections in optatives. I propose that these interjections do not realize *EX* (as one might conjecture), but rather combine with *EX* to strengthen or refine the emotion that is expressed, (322).

(322) *Sub-Claim 6:*

In an utterance of $EX(\varphi)$, uttered to express an emotion $\varepsilon$, *EX* combines with interjections (*oh!*, *man!*, ...) to further refine the expression of $\varepsilon$.

It is a familiar feature of English V1-exclamatives that they almost obligatorily require an interjection, which can be drawn from a set including *Boy, Wow, My,* and *Gee* (Elliot 1971, McCawley 1973).

(323) a. Boy, can you make delicious coffee!

b. My, is this cookie delicious!

(McCawley 1973:371)

Similarly, Scholz (1991) observes that in (German) optatives, interjections are a prototypical feature, drawn from a set including *Ach* 'oh', *Herrje* 'criminy', *Oh Gott* 'oh god' and *Mein Gott* 'my god'.

(324) a. Ach wäre er doch gekommen!
oh were he doch come
'Oh, if only he had come!'

(Scholz 1991:116)

b. Mein Gott, hätten wir doch mehr solche Kunden wie die gerade!
my god had we doch more such customers like those just.now
'My God, if only we had more customers like the ones that were just here!'

(Scholz 1991:114)

This gives rise to an intuitive hypothesis that such interjections are overt realizations of *EX*. However, there is a good reason to reject this hypothesis.

There are two plausible renderings of such a hypothesis. One possibility is that interjections are simply realizations of *EX*; under such a view, any *EX* utterance should be compatible indiscriminately with any interjection that is ever found in an *EX* utterance. The other possibility is that interjections realize a particular *EX* + *Scale* combination. For instance, one might conjecture that *man* or *boy* realize an *EX* operator that combines with an inverse likelihood scale (as in polar exclamatives and degree exclamatives), whereas *oh* realizes an *EX* operator that combines with a preference scale.

The second hypothesis (that interjections lexicalize particular *EX* + *Scale* combinations) is easily rejected. This would predict a complementary distribution of interjections, in that some should only occur in optatives and others should only occur in polar exclamatives or degree exclamatives. We do not find such a complementary distribution. In German, *mein Gott* 'my God' can occur with all three utterance types, shown in (325).

(325) a. *optative*
Mein Gott, hätten wir doch mehr solche Kunden wie die gerade!
'My God, had we only more customers like the ones that were just here!'

(Scholz 1991:114)

b. *polar exclamative*

Mein Gott. daß der aber auch so furchtbar schimpfen kann.
'My God, [it's shocking] that he can swear this viciously!'

(Scholz 1991:18)

c. *degree exclamative*

Mein Gott! Stell' ich mich heut' vielleicht dußlig an!
'My God! Am I behaving clumsily today!'

(Scholz 1991:40)

Similarly, the more general interjection *ach* 'oh' can occur with all three utterance types as well, as shown in (326).

(326) a. *optative*

Ach hätte er das doch nur gemacht!
'Oh if only he had done this!'

(Scholz 1991:115)

b. *polar exclamative*

Ach, daß der Mensch so häufig irrt und nie recht weiß, was kommen wird!
'Oh, [it's shocking] that humans are wrong so often and never know what's coming!'

(Wilhelm Busch. 1904. *Dunkle Zukunft.*)

c. *degree exclamative*

Ach, ist der aber süss.
'Oh is he ever sweet!'

(naturally occurring example from the internet)

These examples show that there cannot be a one-to-one relationship between the type of exclamation and the choice of interjection. This leaves us to consider the alternative option, that interjections lexicalize *EX* itself indiscriminately.

I argue that this cannot be quite right either, as different interjections bias different types of exclamations. Specifically, based on an informal corpus search for English, it can be conjectured that *oh* biases an optative use (as opposed to a degree exclamative use), whereas *boy* biases a degree exclamative use (as opposed to an optative use)[76]. For the pilot study, I used google to search for certain strings on the website *www.yelp.com* (a

[76] The reason I test this for English, rather than for German, is that English is more rigid in the different strings that it allows for, making search results more easy to mine (e.g. searching for the string *if only* in English almost always yields optatives, whereas no corresponding string exists in German).

social reviewing website). I looked through all of the results, verified that the utterances were grammatical and eliminated duplicates. The search strings that I used were *INTERJECTION if only* (e.g. "oh if only") and *INTERJECTION would I* (e.g. "boy would I") – these strings were chosen to narrow down the results to a manageable size. Four modified examples of possible hits are given in (327) and (328).

(327) a. Oh if only I could give zero stars. *optative*
b. Boy if only I could give zero stars.

(328) a. Oh would I love to take all my friends here. *degree exclamative*
b. Boy would I love to take all my friends here.

The table in (329) summarizes the number of entries for a selection of 9 interjections that one may expect to find in exclamations. What is obvious is that degree exclamatives with *would I* are comparatively rare, which means the total number of hits is much lower. (I picked *would I* as the search string, as this is something that one may expect to see in reviews). What is clear from table (329) is that certain interjections (of which I would like to focus on *oh*) are more frequent with *if only* exclamations (i.e. optatives) and others (specifically *boy*) are more frequent with *would I* exclamations (i.e. degree exclamatives). This indicates that different interjections do not indiscriminately express an *EX* operator.

(329)

| | INTJ if only | INTJ would I |
|---|---|---|
| **oh** | **41.1% (244)** | 4.9% (6) |
| **ah** | 13.8% (82) | < 0.5% (0) |
| **man** | 13.1% (78) | 27.9% (34) |
| **boy** | 2.7% (16) | **49.2% (60)** |
| **wow** | 11.1% (66) | 7.4% (9) |
| **damn** | 7.9% (47) | 4.1% (5) |
| **god** | 5.1% (30) | 4.9% (6) |
| **gosh** | 3.4% (20) | 0.8% (1) |
| **my** | 1.9% (11) | 0.8% (1) |
| *total* | 100% (594) | 100% (122) |

The patterns that I observed in my corpus study are summarized in (330) and (331), where superscripted '«' marks *possible but dispreferred.*

(330) a. Oh(,) if only I could give zero stars.
b. «Boy(,) if only I could give zero stars.

(331) a. «Oh(,) would I love to take all my friends here.
d. Boy(,) would I love to take all my friends here.

A pilot study on a different corpus (here: a google search restricted to *www.nytimes.com*) confirms these patterns.

(332)

| | INTJ if only | INTJ would I |
|---|---|---|
| **oh** | **88.8% (120)** | < 0.5% (0) |
| **boy** | 11.1% (15) | **100% (29)** |
| *total* | 100% (135) | 100% (29) |

Informally, these preference patterns seem to point in the direction that *oh* is typically associated with something bouletic, whereas *boy* is typically associated with an indication of unlikelihood. A formalization of the semantics of interjections is beyond the scope of this dissertation, but I conjecture that in the spirit of McCready (2009), they can be analyzed as expressive elements in their own right. In *EX* utterances, the main effects of using different interjections are then, first, to block readings that are incompatible (or dispreferred) with the interjection that is used and, second, to strengthen the emotive / evaluative attitude expressed by the exclamation.

### 4.1.9 Formal matters: What is in *EX* and what isn't.

In the preceding sections, I have argued for the existence of an *EX* operator in exclamations, subsuming optatives and polar exclamatives (and possibly degree exclamatives), cf. sections 4.1.3 and 4.1.4. I have argued that *EX* is emotive (4.1.5),

expressive (4.1.6) and scalar (4.1.7). To capture its meaning, I have proposed the semantics in (333) with the auxiliary definition in (334).

(333) *Lexical entry for EX (final)*

For any scale *S* and proposition *p*, interpreted in relation to a context *c* and assignment function *g*,

an utterance EX(S)(p) is felicitous iff $\forall q[\text{THRESHOLD}(c) >_S q \rightarrow p >_S q]$

"EX expresses an emotion that captures the fact that *p* is higher on a (speaker-related) scale *S* than all contextually relevant alternatives *q* below a contextual threshold."

*where* THRESHOLD(c) is a function from a context into a set of worlds / a proposition that counts as high with respect to a relevant scale *S*.

(334) *definition of scale (final)*

a. A scale *S* is defined as a set of ordered pairs of worlds ($S \subseteq W \times W$), which are ordered by an ordering relation *R*, such that for every pair of worlds $<w_7,w_3>$ in *S*, the relation $R(<w_7,w_3>)$ holds.

b. For any scale *S* and corresponding ordering relation *R*, I use $w_7 >_S w_3$ to mean '$w_7$ is strictly higher than $w_3$ on S', i.e. $R(<w_7,w_3>) \wedge \neg R(<w_3,w_7>)$.

c. For any proposition *p* and *q*, $p >_S q$ iff $\forall w_3 \in q\ \exists w_7 \in p$ such that $w_7 >_S w_3$, and it is not the case that $\forall w_7 \in p\ \exists w_3 \in q$ such that $w_3 >_S w_7$.

(adapted from Villalta 2007:106, using concepts from Klinedinst 2005)

Two illustrations are given in (336) and (337), different readings of the ambiguous (335).

(335) Mein Gott, **dass** der Otto nicht **verschlafen** **hat**! *that-exclamation*
my God that he Otto not overslept has
*lit.* My God, that he didn't oversleep!

(336) *optative reading*

a. LF: [[EX $S_{\text{speaker-preferences}}$] (**dass**) der Otto nicht **verschlafen** **hat**!]
that he Otto not overslept has

b. an utterance of (336a) is felicitous iff $\forall q[\text{THRESHOLD}(c) >_{\text{speaker-preferences}} q \rightarrow \text{Otto-didn't-oversleep} >_{\text{speaker-preferences}} q]$

c. *in words:*

The speaker expresses an attitude that at least some world in which Otto didn't oversleep is more preferable than all of the worlds compatible with relevant alternative propositions. ⇒ *conveys:* 'I hope Otto didn't oversleep!'

(337) *polar exclamative reading*

a. LF: [[EX $S_{speaker\text{-}unlikelihood}$] **(dass)** der Otto nicht **verschlafen** **hat!**]
that he Otto not overslept has

b. an utterance of (337a) is felicitous iff $\forall q$[THRESHOLD(c) $>_{speaker\text{-}unlikelihood}$ q
→ Otto-didn't-oversleep $>_{speaker\text{-}unlikelihood}$ q]

c. *in words:*

The speaker expresses an attitude that at least some world in which Otto didn't oversleep are less likely than all of the worlds compatible with relevant alternative propositions. ⇒ *conveys:* 'I'm surprised Otto didn't oversleep!'

What (336b+c) and (337b+c) do not address is the apparent precondition that (336a) is non-factive whereas (337a) is factive. I address this matter in chapter 5.

The present analysis implements the intuitions that I report in (338b+c). *EX* always conveys that the modified proposition is sufficiently high on a salient scale to trigger an emotion (of desire or surprise, respectively), and the scale is provided by the context.

(338) a. Mensch! Dass der Otto heute nicht verschlafen hat!
man that he Otto today not overslept has
*lit.* 'Man! That Otto didn't oversleep today!'

b. *optative reading:*

LF: [$EX_{speaker\text{-}preference}$ [that Otto didn't oversleep today]]

interpretation: *worlds in which Otto didn't oversleep are higher than a salient threshold ξ on the speaker's* ***preference scale****, where ξ marks the boundary between* ***intolerable worlds (below ξ) and tolerable worlds (above ξ).***

c. *polar exclamative reading:*

LF: [$EX_{speaker\text{-}unlikelihood}$ [that Otto didn't oversleep today]]

interpretation: *worlds in which Otto didn't oversleep are higher than a salient threshold ξ on the speaker's* ***inverse likelihood scale****, where ξ marks the line between* ***unsurprising worlds (below ξ) and surprising worlds (above ξ).***

Focusing on optatives, two aspects of this analysis need to be motivated: First of all, is it necessary to make reference to alternative propositions (Villalta 2000, 2007) rather than simply to the denoted proposition and its polar opposite (Heim 1992, applied to optatives by Kyriakaki 2007, 2008, 2009)? Secondly, if optatives compare the denoted proposition to alternatives, which alternatives is it compared to (i.e. all of them, some of them, etc.)?

Consider Heim's (1992) analysis of *want*[77] (based on Villalta's 2007 non-dynamic rendering), in (339), contrasting it with Villalta's (2007) analysis, in (340)[78].

(339) *desire as polar comparison of a proposition and its opposite (cf. Heim 1992)*

a. $\|\text{want}\|(p)(a)(w) = 1$ iff $\forall w' \in \text{Dox}_a(w)$: $\text{Sim}_{w'}(p) >_{\text{DES}a,w} \text{Sim}_{w'}(\neg p)$

*where*

b. For any proposition *p*, any similarity relation $\leq$ and any world *w*:
$\text{Sim}_w(p) = \{w': p(w') = 1 \ \& \ \forall w'': p(w'') = 1 \rightarrow w' \leq_w w''\}$

c. For any worlds $w_1$, $w_2$ and for any ordering relation $g \in D_{<st,t>}$,
$w_1 >_g w_2$ iff $\{p: p \in g \ \& \ p(w_1) = 1\} \subset \{q: q \in g \ \& \ q(w_2) = 1\}$

d. For any worlds $w \in W$ and sets of worlds $X \subseteq W$, $Y \subseteq W$,
$X >_g Y$ iff $\forall w'[w' \in X \rightarrow \forall w''[w'' \in Y \rightarrow w' >_g w'']]$.

e. $\text{Dox}_a(w)$ contains all the worlds that are compatible with what a believes in the world w to be true (i.e. the worlds that are candidates for being the actual world, according to a's beliefs in w).

d. **In words:** "All of the p-worlds that are closest to the actual world according to the speaker's beliefs are more preferable to the speaker than all of the closest ¬p-worlds."

(based on Villalta's 2007 non-dynamic rendering of Heim's 1992 definition)

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[77] Heim (1992) develops an intuition from Stalnaker (1984), assuming a conditional semantics in the tradition of Lewis (1973) and Stalnaker (1968).

[78] For a different view on how to model preferences, see Condoravdi & Lauer's (2011) *preference structures.*

(340) *desire as a comparison of a proposition and salient alternatives (cf. Villalta 2007)*

a. $||want_C||^g(p)(a)(w) = 1$ iff $\forall q: q \neq p \ \& \ q \in g(C): p >_{DES_{a,w}} q$

*where:*

b. C is a contextually determined set of propositions (plausibly identical to the set of contextually salient focus alternatives, Rooth 1985, 1996).

c. For any worlds w, $w_7$ and $w_3$, $w_7 >_{DES_{\alpha,w}} w_3$ iff $w_7$ is more desirable to $\alpha$ in w than $w_3$.

d. For any proposition p and q, $p >_{DES_{\alpha,w}} q$ iff $\forall w_3 \in q \ \exists w_7 \in p$ such that $w_7 >_{\alpha,w} w_3$, and it is not the case that $\forall w_3 \in p \ \exists w_7 \in q$ such that $w_7 >_{\alpha,w} w_3$.

e. **In words:** "The modified proposition p is more preferable to the speaker than all contextually salient alternatives."

(adapted from Villalta 2007:106)

In words, (339) states that *x wants p* is true if and only if, *all else being equal*, *p*-worlds are more desirable for *x* than ¬*p*-worlds. This accounts for the fact that we can want something that's not optimal, as (341) can be a true statement in a context like (342).

(341) I want to teach Tuesdays and Thursdays next semester.

(Heim 1992, Villalta 2007:96)

(342) *a contextual ranking of desires (from Heim 1992, discussed in Villalta 2007)*

a. First choice: I don't teach at all.

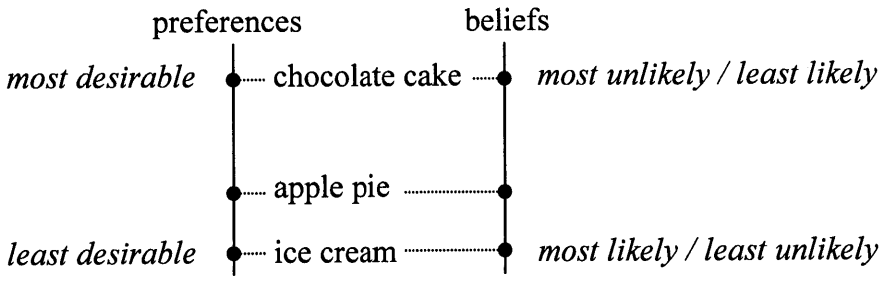
b. Second choice: I teach Tuesdays and Thursdays.

c. Third choice: I teach on other days.

In contrast, (340) states that *x wants p* is true if and only if there is some *p*-world that is more desirable for *x* than all of the worlds compatible with each of the salient alternative propositions *q*. Villalta proposes this modification in order to account for situations in which different alternatives differ in their likelihood but we still care about the best possible option. Consider the scenario in (343a), schematically given in (343b).

(343) a. *Sofia may bring a chocolate cake, apple pie or ice cream to Victoria's picnic. It is extremely unlikely that Sofia brings chocolate cake, whereas it is most likely that she brings ice cream and somewhat less likely that she brings apple pie. Victoria prefers the chocolate cake to the apple pie by far, and she hates ice cream.*

b.




(adapted from Villalta 2007:102+103)

Villalta (2007) argues that the statement in (344) is judged false in a context like (343) even though Heim (1992) predicts (344) to be true, as follows. If we compare the apple-pie worlds that are closest to the actual world to the ¬apple-pie worlds that are closest to the actual world, all of the closest ¬apple-pie worlds are ice-cream worlds (given that chocolate-cake worlds are too remote). A simple comparison between closest apple-pie worlds and closest ¬apple-pie worlds should thus render (344) true. If, however, we compare apple-pie worlds to salient alternatives, we can contextually restrict alternatives to include chocolate-cake worlds. Conversely, in (341), the worlds in which I don't teach at all would already be excluded from the set of contextually relevant alternatives.

(344) # Victoria wishes Sofia would bring an apple pie.
(adapted from Villalta 2007:102+103)

Under Villalta's view, comparison between *p*-worlds and ¬*p*-worlds is then a subcase of the more general comparison between *p*-worlds and contextually salient *q*-worlds. Notably, Villalta remarks that in the context in (343a+b), if Sofia ends up bringing an apple pie, (345) seems to be a true statement. Under the assumption of Heim (1992) that *want*, *wish* and *be glad* have the same core meaning, this possibility clashes with generalized universal quantification over salient alternative propositions and thus prompts Villalta (2007) to relativize *glad* to the entry in (346).

(345) Victoria is glad that Sofia brought an apple pie.
(Villalta 2007:127)

(346) $||\text{be glad}_C||^g(p)(a)(w) = 1$ iff $\exists q: q \neq p \ \& \ q \in g(C): p >_{DES_{a,w}} q$
"*p* is more desirable to *a* in *w* than some contextually relevant alternatives *q*"
(Villalta 2007:128, paraphrase mine)

The question is what the correct meaning is for the *EX* operator. First of all, does the *EX* operator simply compare the denoted proposition and its polar opposite or does it compare the denoted proposition to salient alternatives?

Looking at Villalta's picnic scenario, what we observe is that the choice of particle (i.e. *nur* 'only', *doch*, *wenigstens* 'at least' in German) influences the acceptability of an optative with respect to different alternatives. Consider first a wish for chocolate cake (after the fact), expressed in (347). While such a wish is felicitous with the particle *doch*, it is ill-formed in the relevant context if we use the particle *wenigstens* 'at least'. This is due to the fact that *doch* simply marks a conflict, whereas *wenigstens* 'at least' makes a better alternative salient (see chapter 6 for a detailed discussion of these particles). The particle *nur* 'only' seems wellformed, but slightly more marked than *doch*.

(347) Jetzt kommt die mit Vanilleeis daher! ...
now comes she with vanilla.ice.cream here
'Now she arrives with Vanilla ice cream!'

Ach, wenn sie **doch** / **?nur** /**#wenigstens** einen Schokokuchen gebracht hätte!
oh if she doch only at.least an chocolate.cake brought had
'If only she had brought an chocolate cake!'

Now contrast (347) with (348), which expresses a wish for apple cake. Here, *wenigstens* 'at least' becomes the most natural, whereas *doch* seems slightly more marked, indicating that *doch* in the absence of *nur* 'only' and *wenigstens* 'at least' may by default bias a reading where the denoted proposition is the optimal option as compared to contextual alternatives. (These judgments are very subtle due to the flexible nature of contextual

alternatives and other contextual information; only the illformedness of *wenigstens* 'at least' in (347) is a categorical, strong judgment.)

(348) Jetzt kommt die mit Vanilleeis daher! ...
now comes she with vanilla.ice.cream here
'Now she arrives with Vanilla ice cream!'

Ach, wenn sie ??**doch / nur / wenigstens** einen Apfelkuchen gebracht hätte!
oh if she doch only at.least an apple.cake brought had
'If only she had brought an apple cake!'

The contrast between (347) and (348), coupled with the assumption that the source of desirability (i.e. *EX*) is uniform across different optatives, suggests that we are indeed comparing alternatives, and not just the expressed proposition to its negation; we find some cases, like (348), where the optative marks the denoted proposition as better than some alternative, and other cases, like (347), where the optative marks the denoted proposition as better than all alternatives. What is crucial for distinguishing between Heim (1992) and Villalta (2007) is the issue that wishing for something other than the best should sometimes be deviant, as indicated for *doch* in (348). As the judgments are subtle, it is worth considering another example. Moving from counterfactual cases to non-counterfactual cases, we can establish a contrast similar to (347) and (348). In the absence of any particle, the default interpretation seems to bias universal quantification over the salient alternatives, as shown in (349), whereas *wenigstens* 'at least' enforces existential quantification over salient alternatives, as shown in (350).

(349) Oh, dass Sofia dieses Mal Schokokuchen / ??Apfelkuchen mitbringt!
oh that Sofia this time chocolate.cake apple.cake brings
'Oh that Sofia brings chocolate cake / ??apple pie this time!'

(350) Oh, dass Sofia dieses Mal **wenigstens** #Schokokuchen / Apfelkuchen mitbringt!
oh that Sofia this time at.least chocolate.cake apple.cake brings
'Oh that Sofia at least brings #chocolate cake / apple pie this time!'

What the contrast in (349) suggests is that in the default case an optative requires that the denoted proposition is more preferable than all alternatives (as in the case of the chocolate case, but not in the case of the apple pie). It doesn't simply compare the expressed proposition to its polar opposite all else being equal. At the same time, the meaning of the *EX* operator needs to be flexible in the sense that (350) becomes possible, where the speaker is explicitly settling for a less than optimal option, indicated by the use of *wenigstens* 'at least'.

Consider now the two options that directly follow from Villalta (2007), in (351).

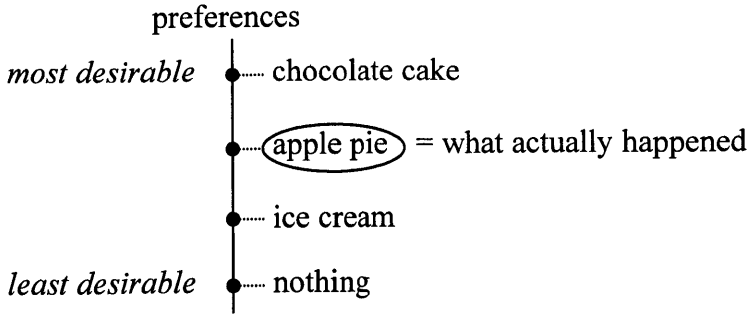
(351) For any scale *S* and proposition *p*, interpreted in relation to a context *c* and assignment function *g*,

a. *universal EX analysis (cf. Villalta's 2007 wish)*
   an utterance $EX_C(S)(p)$ is felicitous iff $\forall q\ [[q \neq p \ \& \ q \in g(C)] \rightarrow p >_S q]$

b. *existential EX analysis (cf. Villalta's 2007 be glad)*
   an utterance $EX_C(S)(p)$ is felicitous iff $\exists q\ [[q \neq p \ \& \ q \in g(C)] \rightarrow p >_S q]$

The option in (351a) must be rejected straight away, given that we have seen cases like (350), where it is crucial that we are not quantifying over all alternatives. This leaves us with the question of whether (351b) is a viable option. This option does not seem to work either. If we take into account the fact that Sofia in Villalta's context may forget / have forgotten to bring anything, there are four salient alternatives, given in (352) (flattening out the probabilities, which are irrelevant for this point). Assume (as indicated) that Sofia brought apple pie. If optatives always expressed existential quantification over alternatives, (353) should be a wellformed exclamation, contrary to fact. This is the case, as *(Sofia brought) nothing* would be a salient, contextually relevant alternative to *(Sofia brought) ice cream*, and *ice cream* would be preferable over *nothing*.

(352)




(353) # If only Sofia had brought ice cream!

To solve this issue, I propose that optatives (like other scalar expressions) are sensitive to a contextually given *standard* or *threshold*, (354), thus arriving at the final analysis of *EX* as presented above. On a preference scale, the threshold would mark the boundary between what is preferable and what is not. On an unlikelihood scale, the threshold would mark the boundary between what is unlikely and what is not.

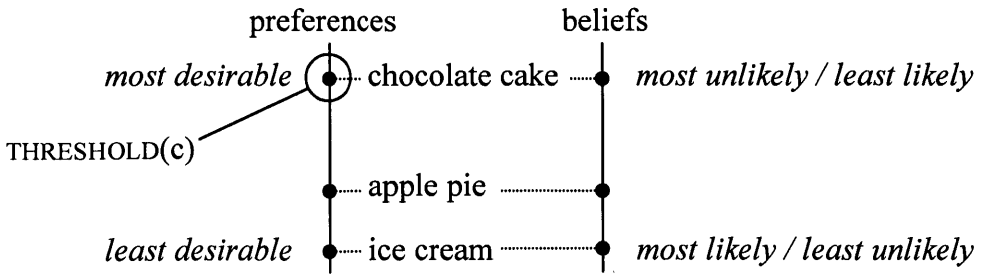
(354) For any scale *S* and proposition *p*, interpreted in relation to a context *c* and assignment function *g*,
an utterance EX(S)(p) is felicitous iff $\forall q[\text{THRESHOLD}(c) >_S q \rightarrow p >_S q]$
*where* THRESHOLD(c) is a function from a context into a set of worlds / a proposition that counts as high with respect to a relevant scale *S*.

In any context, the threshold will now covary with whatever the speaker considers preferable (or possibly: tolerable) or unlikely (and thus surprising). To illustrate, in (355), the contextually given threshold would be set as in (356).

(355) Jetzt kommt die mit Vanilleeis daher! …
now comes she with vanilla.ice.cream here
'Now she arrives with Vanilla ice cream!'

Ach, wenn sie **doch** / **?nur** /**#wenigstens** einen Schokokuchen gebracht hätte!
oh if she doch only at.least an chocolate.cake brought had
'If only she had brought an chocolate cake!'

(356)

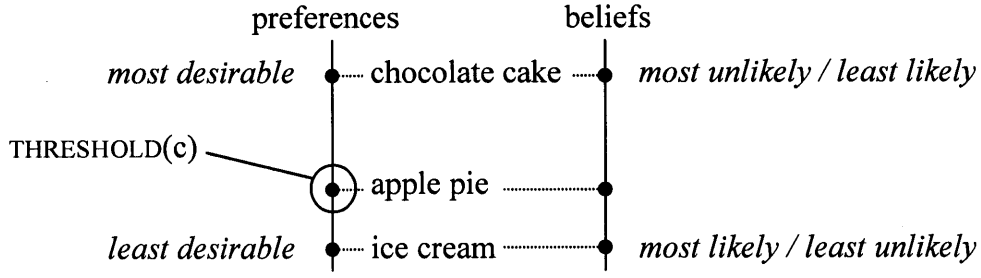



Contrastively, in (357), the threshold would be lower, as in (358).

(357) Jetzt kommt die mit Vanilleeis daher! ...
now comes she with vanilla.ice.cream here
'Now she arrives with Vanilla ice cream!'

Ach, wenn sie ??**doch / nur / wenigstens** einen Apfelkuchen gebracht hätte!
oh if she doch only at.least an apple.cake brought had
'If only she had brought an apple cake!'

(358)




Positing such a view, we can now ask how thresholds can be shifted in a context, and the following contrast gives rise to an interesting generalization. While thresholds can be shifted downwards (indicating willingness to compromise), shown in (359), they cannot be shifted upwards (raising our expectations), shown in (360).

(359) Jetzt kommt die mit Vanilleeis daher! ...
now comes she with vanilla.ice.cream here
'Now she arrives with Vanilla ice cream!'

Ach, wenn sie **doch** einen Schokokuchen gebracht hätte!
oh if she doch an chocolate.cake brought had
'If only she had brought an chocolate cake!'

Oder wenn sie **wenigstens** einen Apfelkuchen gebracht hätte!
or if she at.least an apple.cake brought had
'Or at least if only she had brought an apple pie!'

(360) Jetzt kommt die mit Vanilleeis daher! ...
now comes she with vanilla.ice.cream here
'Now she arrives with Vanilla ice cream!'

Ach, wenn sie **wenigstens** einen Apfelkuchen gebracht hätte!
oh if she at.least an apple.cake brought had
'If only she had at least brought an apple pie!'

# Oder wenn sie **doch** einen Schokokuchen gebracht hätte!
or if she doch an chocolate.cake brought had
'Or if only she had brought an chocolate cake!'

Intuitively, assuming threshold-sensitivity also accounts for the surprise that is felt in polar exclamatives. If I am Victoria and I expect Sofia to bring ice cream, it seems possible to utter both (361a) and (361b) sincerely/felicitously, whereas (361c) seems insincere and thus infelicitous. This is because both (361a) and (361b) violate prior expectations, given that vanilla ice cream was the most likely. (361a) is compatible with the threshold for surprise being chocolate cake or apple pie. (361b) requires the threshold for surprisingness to be as low as apple pie.

(361) a. *When Sofia arrives with chocolate cake:*

Mei, dass du dieses Mal Schokokuchen mitgebracht hast!
my that you this time chocolate.cake brought have
'[I'm surprised] that you brought chocolate cake this time!'

b. *When Sofia arrives with apple cake:*

Mei, dass du dieses Mal Apfelkuchen mitgebracht hast!
my that you this time apple.cake brought have
'[I'm surprised] that you brought apple cake this time!'

c. *When Sofia arrives with vanilla ice cream:*

# Mei, dass du dieses Mal Vanilleeis mitgebracht hast!
my that you this time vanilla.ice.cream brought have
'[I'm surprised] that you brought vanilla ice cream this time!'

### 4.1.10 Two Types of Optatives: *EX*-Optatives and *Adv*-Optatives

So far, I argued that optatives contain an operator *EX*, which is expressive and thus makes them unembeddable; see in particular section 4.1.6. In this section, I broaden my empirical scope and suggest that cross-linguistically there may be two types of utterances that express a desire without a word that means *desire*: Those that involve an *EX*-operator (which are correspondingly unembeddable), and those that bring about optativity by means of some idiosyncratic speech act adverbial. That speech act adverbial may by itself be expressive, but does not shift the propositional content of an utterance into the expressive domain. I will correspondingly call the first type of utterance *EX-Optative*, and the second type of utterance *Adv-Optative*.

A language that seems to have both types of utterances is Spanish. Spanish allows for *if*-optatives as in (362b), but it also allows for *ojalá*-optatives, as in (362a). Notably, *ojalá*-optatives simply have the structure of a declarative matrix clause (and do not involve a complementizer *si* 'if').

(362) *Context: The witches at the witchcraft school are desperately waiting for their broomsticks and wands to arrive in the mail. Once again, neither has arrived.*

a. ¡Ojalá mi escoba estuviera aquí!
OJALA my broom were here
'If only my broom were here!'

b. ¡Si al menos mi escoba estuviera aquí!
if at least my broom were here
'If at least my broom were here!'

I propose that *ojalá*-optatives differ from *if*-optatives in that their overall type is not expressive, which makes them embeddable. They do not contain an *EX*-operator; in contrast, the desirability is encoded by virtue of *ojalá*, which should be analyzed as a type of speech act adverb on a par with English *hopefully*. A sentence with *hopefully* is illustrated in (363a), and (363a) seems to be equivalent to (363b) and not to (363c) (which is a contradiction).

(363) a. Hopefully, he will come back; maybe he won't.

(Joe Nocera: 'Steve Jobs and Apple: Here We Go Again', June 23, 2009, *New York Times Online*)

b. I/We hope that he will come back; maybe he won't.

c. #He will come back; maybe he won't.

As shown in (364), there is no constraint against embedding utterances with *hopefully*. Again, (364) expresses a hope on part of John and not a commitment of John's to come back.

(364) John said that hopefully he would come back.

For Spanish, we thus expect that the *if*-optative (which purportedly contains *EX*) is unembeddable, whereas the *ojalá*-optative may be embeddable. This is indeed what we find, as given in (365) and (366). Example (365) shows that a quantifier can bind into an *ojalá*-optative from a superordinated matrix clause; similarly, (366) shows that *wh*-movement is possible from within an embedded *ojalá*-clause.

(365) *Context: The witches at the witchcraft school are desperately waiting for their broomsticks and wands to arrive in the mail. Once again, neither has arrived.*

a. Cada $\text{bruja}_1$ dice que ojalá $\text{su}_1$ escoba estuviera aquí.
each witch said that OJALA her broom were here
'Each of the witches said that she wished her broom were here.'

b.* Cada $\text{bruja}_1$ dice que si al menos $\text{su}_1$ escoba estuviera aquí.
each witch said that if at least her broom were here
'Each of the witches said that she wished (at least) her broom were here.'

(366) a. ¿Que dijo Juan que ojalá hubieras comprado?
what says Juan that OJALA you.had bought
'What does Juan say that he wishes you had bought?'

b.* ¿Que dijo Juan que si al menos hubieras comprado?
what says Juan that if at least you.had bought
'What does Juan say that he wishes you had bought (at least)?'

Candidates for languages that have such *Adv-Optatives* are clearly languages that use elements that look like specialized speech act adverbs to express desirability; some obvious candidates are given in (367). (What is remarkable is the degree to which such adverbs seem to be loaned into other languages.)

(367) a. **Makari** o John na akusi tin Mary! *Greek*
MAKARI the John subj listened the Mary.acc
'If **only** John had listened to Mary!'

b. **Magari** Maria avesse ascoltato Gianni! *Italian*
MAGARI Maria had listened to.Gianni
'If **only** John had listened to Mary!'

c. **Kashki / Kash / Ey-Kash** John beh Mary goosh mikard! *Farsi*
KASHKI KASH EY-KASH John to Mary listened had
'If only John had listened to Mary!'

d. **Keşke** John Mary'i dinle-se-ydi *Turkish*
KESKE John Mary.acc listen-cond-past
'If only John had listened to Mary!'

e. **Kaash** John-ne apnii maa-kii baat sun-ii ho-tii *Hindi*
KAASH John-erg self.f mother-gen.f talk.f hear-pfv.f be-cf.f
'If only John had listened to his mother!'

f. **Kaash** John Mary-ne joi hath to! *Kutchi Gujarati*
KAASH John Mary-acc seen had then
'If only John had watched Mary!'

g. **Oxalá** fôsse! *European Portuguese*
OXALÁ it.were (Wilkinson 2007)
'If only it were so!'

h. **Tant de bo** jo pogués donar-los una resposta clara. *Catalan*
as.much of good I could give-them a answer clear (DACCO[79])
'If only I could give them a clear answer.'

As expected, some of these languages allow for *Adv*-optatives to be embedded. A first example is given in (368), showing that *kaash*-optatives in Hindi can be embedded.

[79] DACCO, Open Source English-Catalan Dictionary Project. URL: http://www.catalandictionary.org/

(368) Kisi-ne$_7$ nahi kaha ki [**kaash** Kareena-ne uskii$_7$ kitab paRh-ii ho-tii].
anyone-erg not said that KAASH Kareena-erg his book read-pfv.f be-cf.f
'Nobody$_7$ said that he wishes Kareena had read his$_7$ book.'

Similarly, in Greek, *makari*-optatives can be embedded, though this is slightly marked (against the judgments in Kyriakaki 2007, who argues that *makari*-optatives can never be embedded; this variability may suggest inter-speaker variations with respect to whether *makari*-optatives also contain an *EX*-operator or not).

(369) ?I Maria$_3$ lei [oti **makari** o Kostas na tin$_3$ akusi].
Maria says that MAKARI Kostas subj to.her listened
'Maria says she wishes that Kostas had listened to her.'

Interestingly, Turkish never allows for embedded *keşke*-optatives (Süleyman Ulutas, p.c.), and Italian speakers do not pattern on a par with Spanish speakers. While Spanish exhibits a split between embeddable *ojalá*-utterances and unembeddable *si*-utterances, such a split is absent in Italian (though one out of six speakers accepts (370b)).

(370) a. # Gianni$_7$ dice che [**se solo** Maria avesse ascoltato suo$_7$ fratello].
Gianni said that if only Maria had listened to.his brother
'Gianni said that if only Maria had listened to his brother.'

b. * Gianni$_7$ dice che [**magari** Maria avesse ascoltato suo$_7$ fratello].
Gianni said that MAGARI Maria had listened to.his brother
'Gianni said that he wishes Maria had listened to his brother.'

To summarize, contrasts such as presented in (365) and (366) argue for a second type of optative construction, which is different from the *EX*-optatives that I focus on. I have argued that these other optatives may simply contain a speech act adverb, like English *hopefully*, and shown additional evidence in (368) and (369) that such *Adv*-optatives can be embedded. While I maintain that the adverb in *Adv*-optatives may have a similar core semantics to the *EX*-operator, it is crucial that such adverbs operate on the propositional level – in the cases in which *ojalá*, *kaash* and *makari* are embedded, the wish does not

seem to be a wish on part of the speaker, but rather a wish on part of the matrix subject. In this sense, such *Adv*-optatives have neither properties of expressives (which should project to the speaker) nor of exclamations (which I conjecture would be unembeddable). I will thus no longer be concerned with *Adv*-optatives in the following sections.

Before concluding my discussion of *Adv*-optatives, it is however useful to discuss one open question, namely the restrictions that can be observed with respect to possible embedding predicates. If we look at Greek, we instantly notice a restriction to verbs of saying; in (371), based on (369), we see that *anafoni* 'exclaims' can embed a *makari* utterance, whereas *xeri* 'wishes' or *pistevi* 'thinks' cannot do so. This indicates that *Adv*-optatives may have a special status after all.

(371) I Maria$_3$ ?anafoni / *xeri / *pistevi [oti makari o Kostas na tin$_3$ akusi].
Maria ?exclaims *wishes *thinks that MAKARI Kostas subj to.her listened
'Maria exclaims / wishes / thinks that hopefully Kostas had listened to her.'

Judgments in Spanish seem to be less strong than in Greek, but the overall tendency also seems to favor verbs of saying over different attitude predicates[80].

(372) Cada bruja$_1$ dice / ?piensa / ??insiste en / ??espera / ??desea / *quiere
each witch said ?thinks ??insists ??hopes ??wishes *wants
que ojalá su$_1$ escoba estuviera aquí.
that OJALA her broom were here
'Each of the witches said that she wished her broom were here.'

A similar preference has been claimed to hold for embedded imperatives in Crnič & Trinh (2009), who argue that imperatives can be truly embedded under *say* but not under predicates such as *know* (or even *claim*, which strictly speaking qualifies as a verb of saying). This is illustrated in (373).

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[80] While *piensa* 'thinks' seems possible in (372), native speakers report that it strongly favors a quotative reading of the embedded clause (as opposed to a truly embedded reading); this contrasts with *dice* 'says', which does not seem to have this property; cf. also (365) and (366).

(373) a. John said [call Mary]

b.* John claimed (that) [call Mary]

c.* John knows (that) [call Mary]

(Crnič & Trinh 2009:110+120)

Future explorations of this topic may thus focus on the parallels between *Adv*-optatives and imperatives.

### 4.1.11 Summary

In this chapter, I have argued that the desirability in optatives (and the surprise in polar exclamatives) arises by virtue of a generalized exclamation operator *EX*. I have argued against a matrix clause deletion approach, and shown that *EX* is an emotive, expressive and scalar operator that essentially conveys that the modified proposition is above a salient threshold on a contextually provided scale (e.g. speaker's preferences). Subsequently, I have shown that there are other optatives that may not involve *EX*, but rather an optative-meaning-inducing speech act adverb. While *EX*-optatives are unembeddable, such *Adv*-optatives can sometimes be embedded. In the following section, I provide a brief review of Biezma (2011ab), a recent alternative approach to optatives.

## 4.2 An Alternative Approach: Deriving Desirability from the Pragmatics

### 4.2.1 Biezma (2011ab) in a nutshell

Biezma (2011ab) is dedicated to English *if-(only)*-optatives. The core questions that she aims to answer are the following. First, how is desirability derived in (374a+b)? Second, does (374b) have the structure of a conditional or not?

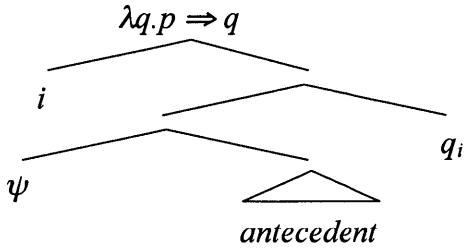
(374) a. If only I had been taller, I would have played in the NBA.

b. If only I had been taller!

(adapted from Biezma 2011a)

Biezma (2011ab) argues for an analysis of optatives that incorporates the following proposals. First, optatives are conditionals with an elided consequent. Deletion is modeled by means of a silent <st> type variable $q_i$ in consequent position, which is abstracted over. As such, they have a structure as in (375). What surfaces as the *if*-optative in (374b) is an expression of type <st,t>, i.e. a set of propositions. ('⇒' is a place-holder for the semantics of the conditional modal ψ.)

(375)




(Biezma 2011b:116)

The second part of Biezma's proposal is that optatives are conditionals with reverse topicality[81]. She observes that in regular conditionals, the antecedent is the topic and the consequent is focus (an idea Biezma adopts from Haiman 1978, Reinhart 1981, Ebert, Endriss & Hinterwimmer 2008). This entails that the antecedent can be elided, (377).

(376) A: What would happen after the fall of the dictatorial Government?
B: If the government fell, a democratic system would be established.
(Biezma 2011a)

(377) A: What would happen after the fall of the dictatorial Government?
B: (~~If the government fell,~~) A democratic system would be established.

On analogy, Biezma argues that optatives are mention-some answers to a question of how to bring about some salient consequent.

(378) *schematic representation of the information structure of an optative*
A: How would I have brought it about that I played in the NBA?
B: If only I had been taller(~~, I would have played in the NBA~~).

[81] A similar view has been maintained for German *dass*-optatives and *dass*-polar exclamatives by Schwabe (2007:109), cf. Schwabe (2006), who assumes that such unembedded *dass*-clauses are the focused part of a larger construction involving an elided, backgrounded matrix clause.

Biezma then proceeds to argue that desirability arises because contexts in which optatives are felicitous involve an Immediate Question under Discussion (abbreviated as *IQuD*) that asks for sufficient conditions to bring something about. In such a context, optatives are then presented as mention-some answers as opposed to mention-all answers, which favors a goal-oriented question, (379), over a neutral question, (380). The mention-some nature of optatives is argued to be due to the semantics of *only*, which (in the spirit of Beaver & Clark 2008) marks the modified statement as the strongest answer to the IQuD (as opposed to an exhaustive answer to the IQuD).

(379) a. How do we bring β about?
b. How would we have brought β about?
c. How do I get to [$_{\beta}$ the supermarket / play in the NBA / #die]?

⇒ **desire for β is implied/entailed**

(partially adapted from Biezma 2011a)

(380) What are the circumstances that would bring about β?

(Biezma 2011a)

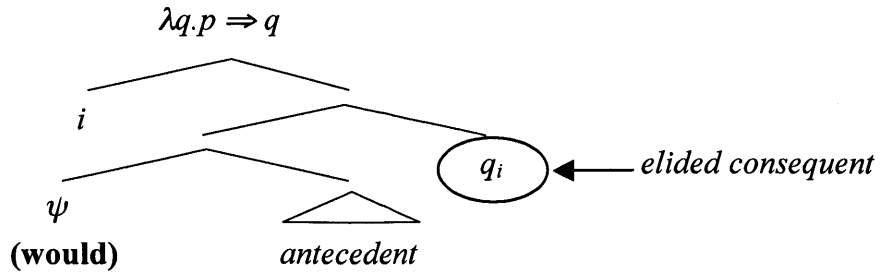
⇒ **desire for β is not implied/entailed; β can be negative/neutral**

Biezma aims to thus derive the intuition that what is desired in an optative is the implied consequent and not the denoted proposition (as Biezma 2011a argues, cf. Rifkin 2000, Asarina & Shklovsky 2008). I will review each of her sub-proposals in turn, arguing that there are problems with each of them, which need to be resolved in order to maintain such an analysis.

### 4.2.1 Are optatives conditionals?

One core assumption of Biezma's (2011a) is that optatives are truly conditionals, where the consequent can be elided, cf. (381).

(381)




**if only I had been taller**

Though Biezma assumes that utterances like (382a) have a "conditional structure" and that "conditionals and optatives have the same underlying logical form", she assumes that (382a) has the [λq.p ⇒ q] type denotation in (382b) via abstraction over the consequent (i.e. an optative denotes a property of propositions). She argues that this derives the unembeddability of *if*-optatives as well as the fact that they cannot be conjoined with propositions (cf. Rifkin 2000).

(382) a. If only it had rained!

b. λq.rain ⇒ q

A concern with respect to Biezma's analysis is that it seems to predict that optatives should behave like answer fragments. While we have seen that this is indeed true with respect to embedding and conjunction (e.g. (247c)), this is not true with respect to modification by an adjunct clause. It is unclear how we could account for the asymmetry in (383a) vs (383b). Naturally, Biezma could assume that the optative in (383b) involves abstraction over a propositional variable in consequent position, as in (381), whereas a fragment answer like (383a) would simply involve deletion of a non-pronominal consequent. However, it is unclear what would motivate such a distinction, provided the purported similarity of the two constructions.

(383) a. A: Unter welchen Umständen wäre die Party ein Erfolg gewesen?
under which circumstances were the party a success been
'Under which circumstances would the party have been a success?'

B: Wenn Hans gekommen wäre weil er immer guten Wein
if Hans come were since he always good wine

mitbringt.
brings

'If Hans had come, because he always brings good wine.'

✓ *because he always brings good wine > [The party would have been a success if Hans had come]*

LF: [~~**The party would have been a success**~~ if Hans had come], because he always brings good wine.

b. Wenn Hans **doch** **nur** gekommen wäre (#weil er immer
if Hans DOCH only come were because he always

guten Wein mitbringt).
good wine brings

'If only Hans had come (#because he always brings good wine).'

### 4.2.2 Do optatives involve reversed topicality?

Biezma argues that while regular conditionals have the topic-focus structure in (384b) and may serve to answer an implicit question as in (384b), optatives exhibit the inverse pattern, i.e. (385b), which can partially answer the implicit question in (385a). (The underlying assumption is that the Focus always answers the IQuD.)

(384) a. *Immediate Question under Discussion:*
What would happen if p was the case?

b. [$_{\text{Topic}}$ (If p)], [$_{\text{Focus}}$ then q]

(385) a. *Immediate Question under Discussion:*
How would we get to be in a q situation?

b. [$_{\text{Focus}}$ If only p], [$_{\text{Topic}}$ (then q)]

Biezma views the core function of particles such as *only* in optatives to mark focus on the entire proposition in the antecedent proposition, thus indicating the proposed reversal of topicality. The idea is that the particle must takes a proposition-denoting complement (a

view that I largely share, cf. chapter 6) and associate with focus on the entire proposition in order to license optativity.

(386) a. If only [mom invited grandpa]$_F$ (… he wouldn't come).
b. If only [MOM]$_F$ invited grandpa #(… he wouldn't come).
(adapted from Biezma 2011a)

Particles are assumed to give rise to a reversal of information structure at the sentence level; optativity is thus licensed by the presence of a focus particle and not from its semantic content. (See chapter 6 for my own view on this matter.)

Concerns for this view arise as follows. On the one hand, it is not clear that these claims can be maintained when we look beyond English. It appears that an optative reading, as glossed, is still available in (387), even though both clauses involve narrow focus on *einer* 'one'. (It is relevant for the point that I make that *nur* 'only' is read in its non-exclusive ONLY$_2$ reading, see chapter 6.2.)

(387) *Context: Hans came alone, which is why the event was canceled.*

a. Ach, wenn Hans mit **nur** [EINER]$_F$ Begleitperson gekommen wäre!
oh if Hans with only one guest arrived were

b. Ach, wenn Hans **nur** mit [EINER]$_F$ Begleitperson gekommen wäre!
oh if Hans only with one guest arrived had
✓ 'Oh, if only Hans had brought **at least** one guest!'
(*not intended:* 'Oh, if only Hans had **not** brought **more than** one guest!')

Similarly, in the following example, the focus that *doch* associates with indicates which aspect of the present situation the speaker would have liked to change (cf. Grosz 2011). Wide sentential focus does not appear to be necessary for an optative reading. These examples thus raise concern with respect to the assumption that focus particles in optatives serve to mark the entire antecedent as *focus*.

(388) a. Wenn **doch nur** [OTTO]$_F$ die Nachtschicht mit Anna geteilt hätte!
if doch only OTTO the night.shift with Anna shared had
'If only it had been Otto who shared the night shift with Anna!'

b. Wenn Otto **doch nur** [die NACHTschicht]$_F$ mit Anna geteilt hätte!
if Otto doch only the night.shift with Anna shared had
'If only it had been the night shift that Otto shared with Anna!'

c. Wenn Otto die Nachtschicht **doch nur** mit [ANNA]$_F$ geteilt hätte!
if Otto the night.shift doch only with Anna shared had
'If only it had been Anna that Otto shared the night shift with!'

On the other hand, it is not clear in which respect optatives and co-occurring 'consequents' really behave like focused elements and topics respectively. Reis & Wöllstein (2010) show that regular conditionals typically only contain one focused constituent, which marks the new information. The examples in (389) are from Reis & Wöllstein (2010:148); I have added the context question, brackets, focus diacritic, glosses and translations.

(389) a. *Under which circumstances would you drive a Bentley?*

[Wenn ich MillioNÄR wäre]$_F$, würde ich es tun.
if I millioNAIRE were would I it do
'If I were a millionaire, I'd do it.'

b. *What would you do if you were a millionaire?*

Wenn ich Millionär wäre, [würde ich BENTley fahren]$_F$.
if I millionaire were would I BENTley drive
'If I were a millionaire, I'd drive a bentley.'

Biezma's analysis predicts that optatives with overt consequents should behave like (389a), i.e. it should be possible to deaccent the purported consequent. This does however not seem to be the case. We have already seen that optatives in German resist being truly integrated into a 'consequent', (390a). If we construe a grammatical example where the 'consequent' contains initial *dann* 'then' or a verb second configuration, both clauses seem to require a focus, as indicated in (390b+c). In terms of Reis & Wöllstein (2010) this indicates that both clauses have a separate focus-background structure, and they are

not parts of a superordinate focus-background structure. I consider this a serious issue for Biezma's analysis.

(390) a.* Wenn ich **doch nur** MillioNÄR wäre, würde ich Bentley fahren.
if I doch only millioNAIRE were would I Bentley drive.
'If only I were a millionaire, I'd drive a bentley.'

b. Wenn ich **doch nur** MillioNÄR wäre, ich würde BENTley fahren.
if I doch only millioNAIRE were I would BENTley drive.
'If only I were a millionaire, I'd drive a bentley.'

c. Wenn ich **doch nur** MillioNÄR wäre, dann würde ich BENTley fahren.
if I doch only millioNAIRE were then would I BENTley drive.
'If only I were a millionaire, I'd drive a bentley.'

Further evidence that optatives and their consequents are not parts of a larger focus-background structure stems from the (im)possibility of deaccenting the backgrounded part. As illustrated in (391b), where small font marks deaccentuation, deaccentuation of the consequent does not seem possible in an optative conditional. This contrasts with a regular conditional in (391a), where deaccentuation is allowed.

(391) a. *Under which circumstances would you drive a Bentley?*

Wenn ich MillioNÄR wäre, dann würde ich Bentley fahren.
if I millioNAIRE were then would I Bentley drive
'If I were a millionaire, I'd drive a Bentley.'

b.* Wenn ich **doch nur** MillioNÄR wäre, dann würde ich Bentley fahren.
if I doch only millioNAIRE were then would I Bentley drive.
'If only I were a millionaire, I'd drive a Bentley.'

This strongly suggests that an *if*-optative and its apparent consequent have separate topic-focus structure, in the sense that each of them must contain a separate focus. This calls the idea in question that *if*-optatives are 'focus constituents' themselves, with an optional overt consequent marking the background.

In fact, in the case of seemingly truly integrated *if*-optatives (which I presented above as counterexamples to Scholz's unembeddability generalization), the matrix clause

requires an additional focus stress (and in fact the *if*-optative itself seems to require deaccentuation), shown in (392a); this further argues against a view of *if*-optatives as elements that are focused in Biezma's sense.

(392) a. [Wenn ich **doch** **nur** könnte], **würde** ich soFORT kommen.
if I DOCH only could would I immediately could
'If only I could, I would come immediately.'

b.* [Wenn ich **doch** **nur** KÖNnte], **würde** ich sofort kommen.
if I DOCH only could would I immediately could
'If only I could, I would come immediately.'

### 4.2.3 Can we derive desirability from the discourse?

Biezma (2011a) further argues that the desired proposition in an optative is not the antecedent, but the consequent (also suggested in Rifkin 2000, and assumed in Asarina & Shklovsky 2008). The antecedent that is expressed in an optative is assumed to be the best means to bring about the consequent, and is thus marked by virtue of *only*. To back up her claim that the speaker actually desires the consequent and not the antecedent, Biezma provides the following example.

(393) A: If only I had been taller, I would have played in the NBA
B: That would not have been necessary, you were such a great player! What would have made a difference was if you had been in a better college team.
A: Yeah...!, you are right..., If only I had played for UCLA, I would have played in the NBA

(Biezma 2011a)

In brief, Biezma argues for the following points. Optatives provide an answer to an implicit context question, which could a priori be (394a) or (394b).

(394) a. How would we get to be in a q situation? *(goal oriented)*
⇒ **desire for q is implied/entailed**

b. Under which circumstances would a q situation arise?
   ⇒ **desire for q is not implied/entailed; q can be negative/neutral**

Due to the presence of *only*, the answer that an optative provides is marked as the best answer (i.e. as the strongest sufficient way of bringing about the desired *q*), based on Beaver & Clark (2008). Given that the answer to the contextual IQuD is non-exhaustive, a mention-some IQuD like (394a) is preferred over a mention-all IQuD like (394b), which would require an exhaustive answer. It follows that optatives are uttered in response to a goal oriented question. Goal-oriented questions entail desirability, which accounts for the difference between (395a) and (395b), missing in (396a) and (396b). This is how Biezma derives desirability in optatives.

(395) a. How do I get to arrive in NYC on time? *(goal oriented)*
b.# How do I get to be arrested and tortured?

(396) a. Under which circumstances would I arrive in NYC on time? *(neutral)*
b. Under which circumstances would I be arrested and tortured?

Schematically, an example for how to derive desirability in an optative is given in (397), a brief summary of Biezma's (2011ab) own example.

(397) *Background knowledge:* John's car broke down. He called his mechanic friend Tom, but Tom came too late to fix the car in time for John to get to his job interview in time.
a. *optative* Tom: If only I had arrived earlier!
*is a response to a goal oriented mention-some question*
b. *inferred IQuD:* How would John have gotten to his interview on time?
*this implies desirability due to its goal-oriented nature*

Let me now review a few problems with this approach. First, an obvious conceptual problem concerns the issue that optatives cannot be used in response to an overt question, as shown in (398) and (399).

(398) A: How would we have brought it about that John made it to his interview on time?

B:#If only Tom had arrived earlier.

(399) A: How would we have made it to the theater in time?

B-1: If we had taken the number 7 bus.

B-2: # If only we had taken the number 7 bus.

If we grant that this is a difference between overt questions and implicit IQuDs, the following issue arises.

Biezma's analysis is based on the assumption that the speaker of an optative *p* actually desires the implicit consequent *q* and not necessarily the proposition *p* itself. Let us review Biezma's argumentation for this claim. Take Biezma's example in (400a). Logically, there are three possible locations of the origin of the perceived wish. The speaker may wish for the antecedent, as shown in the paraphrase in (400b); the speaker may wish for the consequent, as shown in the paraphrase in (400c); and the speaker may wish for both, as shown in the paraphrase in (400d).

(400) a. If only I had been taller, I would have played in the NBA. (Biezma 2011a)

b. **I wish** I had been taller. Then I would have played in the NBA.

c. If I had been taller, I could have played in the NBA, and **I wish** I could have played in the NBA.

d. **I wish** I had been taller. Then I could have played in the NBA, and **I wish** I could have played in the NBA.

Biezma and I differ in that she assumes (400c), whereas I assume (400b). Neither of us argues directly for (400d), which may be conceptually motivated, as there seems to be no reason to assume that desirability is conveyed twice (though Rifkin 2000 may be seen as a proponent of (400d), as he argues that both antecedent and consequent must be desirable).

It can easily be shown that Biezma's argument for (400c) and against (400b) is not convincing. Consider the evidence that she presents in (401). The idea is that the content of the optative hinges on our expectations of it being a good means to achieve the consequent.

(401) A: **If only** I had been taller, I would have played in the NBA

B: That would not have been necessary, you were such a great player! What would have made a difference was if you had been in a better college team.

A: Yeah…!, you are right…, **If only** I had played for UCLA, I would have played in the NBA

(Biezma 2011a)

The problem that arises for this argument is that the variant in (402), in which the optative is replaced by a *wish* statement, seems to behave accordingly. Our wishes can be as contingent on fulfilling some greater purpose as optatives can, challenging the conclusion that Biezma draws. If we drew the same conclusion from (402) that Biezma draws from (401), it would follow that a statement of *I wish p* does not actually express a wish for *p*. This is evidently an undesirable result.

(402) A: **I wish** I had been taller. Then I would have played in the NBA

B: That would not have been necessary, you were such a great player! What would have made a difference was if you had been in a better college team.

A: Yeah…!, you are right…, **I wish** I had played for UCLA. Then I would have played in the NBA.

Quite generally, it seems that *wish*-statements trigger the desirability of a following proposition in just the same contexts in which optatives do. Example (403b) is just as illformed as (403a), and (404a) is just as acceptable as (404b). So Biezma's examples do not bear on the question as to whether the denoted proposition in an optative *if*-clause is the locus of desirability or not.

(403) a.# **If only** I had gone to the party last night... (then) I would have overslept.
b.# **I wish** I had gone to the party last night... (then) I would have overslept.

(404) a. **If only** I could have gone to the party last night... but I would have overslept.
b. **I wish** I could have gone to the party last night... but I would have overslept.

In contrast, the following example, in (405), strongly challenges Biezma's premise that the locus of desirability is outside of the optative *if*-clause. Biezma's analysis predicts that the ill-formed continuation in (405b) should be well-formed, because (405b) should not entail a wish for snow *per se*. In this sense, (405b) should behave on a par with (405c) and no different from (405a). In contrast, it appears that (405b) cannot be continued as indicated[82].

(405) *Context: I love snowboarding and I want to go snowboarding as often as possible.*

a. If it snowed tonight, we would go snowboarding tomorrow ...
but I really don't want it to snow, because I hate shoveling the sidewalks.

b. If **only** it snowed tonight, we would go snowboarding tomorrow ...
#but I really don't want it to snow, because I hate shoveling the sidewalks.

c. If it snowed tonight, we would go snowboarding tomorrow, and I wish we would go snowboarding tomorrow ... but I really don't want it to snow, because I hate shoveling the sidewalks.

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[82] The contrast between (405b) and (405c) is a special instantiation of what we may call *Condoravdi & Lauer's generalization* (cf. Condoravdi & Lauer 2010). Condoravdi & Lauer observe that optatives (like imperatives) cannot express inconsistent wishes, even though *wish* statements can be inconsistent.

i. Right now, I wish I lived in New York City and I wish I lived in Los Angeles, because I love many things about each of them and I'm really sick of living in a small city.
ii. #Oh, if only I lived in New York City and if only I lived in Los Angeles!
iii. #Oh, if only I lived in New York City! If only I lived in Los Angeles!

Example (405b), in contrast to (405c), suggests that the locus of desirability is in fact in the *if*-clause, and not in the implied consequent. This observation supports my view and challenges Biezma's view. The fact that desirability is not defeasible in (405b) further suggests that desirability is an entailment of optative utterances, and not simply an implicature.

Note that examples like (406a) do not pose a problem to my account (or an argument for Biezma's account), as wishes can indeed derived from a greater good; (406b) is well-formed and semantically consistent. In this case, the speaker's death is indeed high on the speaker's preference scale; why this is the case is secondary (though in this example the answer is provided immediately).

(406) a. **If only** I had died instead of my king … (then) my king would still be alive.
b. **I wish** I had died instead of my king! Then my king would still be alive.

We can thus conclude that there are several issues for Biezma's approach that my analysis does not face. This discussion concludes the present chapter, and I will now proceed to discuss the role of mood in optatives.

# 5. On the Role of Mood in Exclamations

This chapter extends the proposal outlined in section 3.2.4 and presents my analysis of mood in exclamations. I use the term *mood* to refer to semantic mood (Portner's 1997, 2006 *notional mood*), including notions such as counterfactuality and factivity; I use the term *m-mood* to refer to morphological mood marking (e.g. subjunctive/indicative) on the verb. I proceed by presenting my core proposal and then focus on integrating my proposal into our current knowledge with respect to mood.

## 5.1 The Core Proposal: Connecting V to C via Mood

### 5.1.1 Two Puzzles

I have argued for a uniform *EX-Op* approach to optatives and other exclamations, such as polar exclamatives. What we notice is that German exclamations exhibit variation across two dimensions, illustrated for optatives in (407) and (408). First, optatives vary more or less freely in their choice of complementizer (*dass* 'that' in (407a)+(408a) or *wenn* 'if' in (407b)+(408b)) or (V-to-)T-to-C movement (in (407c)). (I will henceforth use the abbreviation *V1* for (V-to-)T-to-C movement in exclamations.) Secondly, they vary in their m-mood marking, which correlates with counterfactuality (in the case of the subjunctive) in (407), and non-counterfactuality (in the case of indicative) in (408). Under my uniform proposal, each of these utterances contains an exclamation operator $EX_S$, the meaning of which is repeated from (138) in (409).

(407) *subjunctive (and counterfactual) optatives*

a. [$EX_S$ [**Daß** er nur rechtzeitig gekommen **wäre**]!
that he only in.time come were

b. [$EX_S$ [**Wenn** er nur rechtzeitig gekommen **wäre**]!
if he only in.time come were

c. [$EX_S$ [**Wäre** er nur rechtzeitig gekommen $t_{wäre}$]!
were he only in.time come
'If only he had come in time!'

(408) *indicative optatives*

a. [$EX_S$ [**Daß** er nur rechtzeitig gekommen **ist**]!
that he only in.time come is

b. [$EX_S$ [**Wenn** er nur rechtzeitig gekommen **ist**]!
if he only in.time come is
'If only he has come in time!'

(409) For any scale *S* and proposition *p*, interpreted in relation to a context *c* and assignment function *g*,

an utterance EX(S)(p) is felicitous iff $\forall q[\text{THRESHOLD}(c) >_S q \rightarrow p >_S q]$

"EX expresses an emotion that captures the fact that *p* is higher on a (speaker-related) scale *S* than all contextually relevant alternatives *q* below a contextual threshold."

*where* THRESHOLD(c) is a function from a context into a set of worlds / a proposition that counts as high with respect to a relevant scale *S*.

Two puzzles arise. The first puzzle is what determines complementizer selection and the possibility of V1 (e.g. when do they distribute freely? When are they restricted and how?). The second puzzle concerns the question of how presuppositions on the status of the denoted proposition arise in a uniform approach to exclamations. The standard assumption for predicates like *want* or *wish* is that their core semantic meanings are identical to each other's (and similar to that in (409)), while they lexically differ in their presuppositions. Villalta's (2007) core semantics for predicates of desire (cf. Heim 1992) is given in (410a). In addition to this shared truth-conditional meaning, *want* presupposes the non-counterfactuality of the modified proposition and its relevant alternatives, (410b), and *wish* presupposes the counterfactuality of the modified proposition, (410c).

(410) *Villalta's (2007) semantics for want and wish; based on Heim (1992)*

a. if defined $||\text{want}_C||^g(p)(a)(w) = ||\text{wish}_C||^g(p)(a)(w) = 1$ iff

$$\forall q[[q \neq p \ \& \ q \in g(C)] \rightarrow p >_{DES_{a,w}} q]$$

"The speaker prefers the denoted proposition p over all relevant contextual alternatives."

b. $||\text{want}_C||^g(p)(a)(w)$ is defined iff $\forall q[q \in g(C) \rightarrow \text{Dox}_a(w) \cap q \neq \emptyset]$

"*want* is defined iff the denoted proposition p is still a real possibility."

c. $||\text{wish}_C||^g(p)(a)(w)$ is defined iff $p \cap \text{Dox}_a(w) = \emptyset$

"*wish* is defined iff the denoted proposition p is false in the utterance context."[83]

(Villalta 2007:108)

In a uniform analysis of $EX_S$, presuppositions like (410b) and (410c) cannot be part of the lexical meaning of $EX_S$, given that $EX_S$ is compatible both with counterfactual optatives, (411), and non-counterfactual optatives, (412).

(411) a. *subjunctive (and counterfactual) optatives*

[$EX_S$ [**Wenn** er nur rechtzeitig gekommen **wäre**]!
if he only in.time come were
'If only he had come in time!'

b. *intuitive paraphrase:* 'I **wish** that he had come in time (**and he didn't**).'

(412) a. *indicative optatives*

[$EX_S$ [**Wenn** er nur rechtzeitig gekommen **ist**]!
if he only in.time come is
'If only he has come in time!'

b. *intuitive paraphrase:* 'I **want** that he came in time (**and he may have**).'

If we were to assume that $EX_S$ comes in different flavors, a counterfactual *EX* and a non-counterfactual *EX*, this amounts to positing a null *WISH* operator (cf. Kyriakaki 2007, 2008, 2009 for such a view) and a null *WANT* operator, as given in (413). Such a move amounts to generalizing to the 'worst case scenario', as we could no longer maintain a uniform analysis to different types of exclamations. Until it becomes clear that this is the correct approach, I pursue the option in (411)+(412), to see how far it can be pushed.

(413) a. *subjunctive (and counterfactual) optatives*

[WISH [**Wenn** er nur rechtzeitig gekommen **wäre**]!
if he only in.time come were
'If only he had come in time!'

[83] See also Iatridou (2000).

b. *indicative optatives*

[WANT **[Wenn** er nur rechtzeitig gekommen **ist**]!
if he only in.time come is
'If only he has come in time!'

In brief, the two puzzles we aim to solve are (i.) how to account for what material occurs in the position of C in an exclamation (*dass* 'that', *wenn* 'if' or the finite verb), and (ii.) how to derive the *wish/want*-type presuppositions that are intuitively present in exclamations.

### 5.1.2 One Solution (in a nutshell)

How can we proceed from here? What I propose is that we can derive the presuppositions of different $EX_S$ utterances by proposing an analysis of semantic mood in exclamations. My proposal is inspired by Truckenbrodt (2006ab) (and the reply by Portner 2006) and argues that complementizer selection / V1 are part of a split-mood-marking system. I argue that every German clause is anchored to the context by means of semantically interpreted mood features, one of which is a counterfactual mood feature, given in (414). Clearly, (414) is tantamount to the presupposition that Villalta (2007) ascribes to the lexical meaning of *wish*, in (410c). Therefore, a combination of $EX_S$ and $Mood_{CF}$ gives rise to the desired meaning, as shown in (415). Given that (415) successfully derives the intuited meaning of such utterances, the analysis seems to be on the right track. But how do we connect the semantic mood feature (here: $Mood_{CF}$) to m-mood and to the material that occupies C?

(414) $||\text{Mood}_{CF}||^c = \lambda p \,.\, \lambda w : p \cap \text{Dox}_{\text{speaker}}(w) = \varnothing \,.\, p(w)$ COUNTERFACTUALITY[84]

"The speaker presupposes *p* to be false."

---

[84] This is a simplification, as it is an open question whether there are any utterances that ever truly presuppose counterfactuality, cf. Anderson (1951), Iatridou & Embick (1994), von Fintel (1997), Biezma (2011b). Scholz (1991) argues that there are even optatives in the subjunctive that are not counterfactual (her *potentialis* optatives); as evidence, she provides German versions of (i)-(vi). Given the pragmatics of wishes, it is not clear that any of these do not presuppose counterfactuality at some level.

i. If only spring would come!
ii. If only he would get well soon!
iii. If only Paul came back home soon!
iv. If only this car would park here again tomorrow!
v. If only we were to stay well this time!
vi. If only I would finish this task soon!

(415) *subjunctive (and counterfactual) optatives (preliminary sketch)*

a. [$EX_{preferences}$ [$Mood_{CF}$ **(Wenn)** Otto nur rechtzeitig gekommen **wäre]]!**
if Otto only in.time come were
'If only Otto had come in time!'

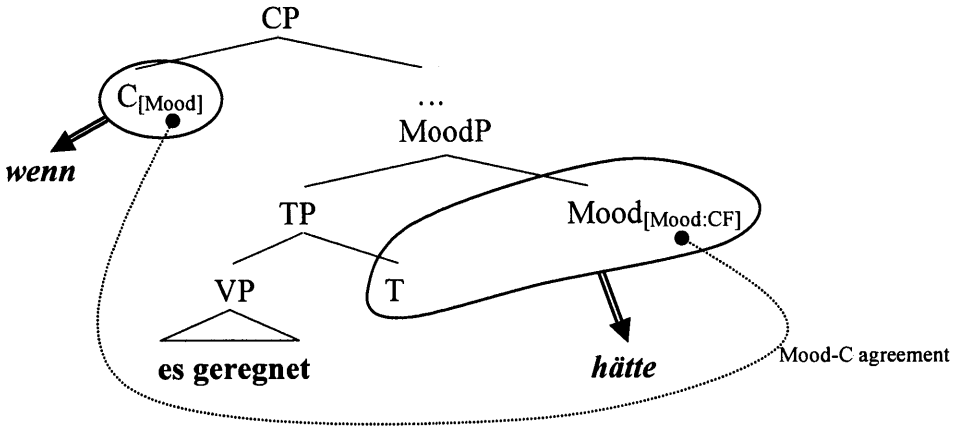
b. $Mood_{CF} \Rightarrow$ (415a) is defined iff Otto-came-in-time $\cap$ $Dox_{speaker}(w) = \varnothing$
*in words:* "I presuppose that Otto didn't come in time."

c. $EX_{preferences} \Rightarrow$ (415a) is felicitous iff
$\forall q[\text{THRESHOLD}(c) >_{preferences} q \rightarrow \text{O-came-in-time} >_{preferences} q]$
*in words:* "I express my emotion towards the desirability of Otto having come in time."

I argue for a split-mood-realization system, where complementizer choice / V1 and m-mood are both consequences (or even overt expressions) of a semantically interpreted mood feature, as sketched (informally) in (416). (A system where mood is realized both in C and a lower Mood head has been proposed before, cf. Giorgi & Pianesi 1997, 2004, Kempchinsky 1986 and Quer 1998. The relevant idea is summarized in Giorgi 2009, who calls this an instance of *discontinuous morphology*, where mood is realized in a scattered way, employing both the complementizer and the morphological mood on the verb.)

(416) a. Ach, **wenn** es geregnet **hätte!**
oh if it rained had
'If only it had rained!'

b.




In what follows, I first motivate the proposed connection between the overt content of the C position and semantic mood presuppositions, in section 5.1.3. I then argue (in section

5.1.4 that split-realization of Tense/Aspect/Mood information across the C/INFL-system (where C and Mood/T distributively spell-out Mood or Tense information) is a more wide-spread phenomenon, and not idiosyncratic to the configurations that I am looking at, corroborating the view that I am pursuing. Subsequently, I focus on the syntactic implementation of my proposal (in section 5.1.5) and discuss additional motivation for my approach (in section 5.1.6).

### 5.1.3 Arguing for a split-mood-realization system in German exclamations

Consider first the empirical scope of the present discussion: Three types of exclamation in German, counterfactual optatives, non-counterfactual optatives, and polar exclamatives. A benchmark example of each construction is given in (417).

(417) a. **Daß** Otto nur rechtzeitig gekommen **wäre**! *counterfactual optative*
that Otto only in.time come were
'If only Otto had arrived in time!'

b. **Daß** Otto nur rechtzeitig gekommen **ist**! *non-counterfactual optative*
that Otto only in.time come is
'If only Otto has arrived in time!'

c. **Daß** Otto doch glatt rechtzeitig gekommen **ist**! *polar exclamative*
that Otto doch outright in.time come is
'[I'm shocked] that Otto has arrived in time!'

The purpose of this section is to argue that in each of these constructions the possible choices of overt complementizers (*wenn* 'if' vs *dass* 'that') and V1 are connected to the semantic mood of these clauses[85]. To do so, I first posit an approximation of the mood

[85] The idea that V1 is connected to the mood of the clause it occurs in is based on Truckenbrodt (2006ab) and Portner (2006), but the roots of this idea go back much further. Many authors working on Germanic verb second (the type of V-to-INFL-to-C movement that is also commonly assumed to underly V1 in German and other Germanic languages) have linked verb second (short: *V2*) to tense / finiteness (Thiersch 1978, Koeneman 2000, 2010, Ackema et al. 1993, Bury 2003, 2010, see Jouitteau 2010 for a discussion). An alternative view maintains that Germanic V2 is connected to illocutionary force (Andersson 1975, den Besten 1983, Wechsler 1991, Bennis 1998, Gärtner 2001, Koster 2003, Brandner 2004, Heycock 2006, Truckenbrodt 2006ab, Julien 2007, Bentzen et al 2007, Brandner 2010; see Holmberg 2010 for an overview; Wiklund 2009, Migdalski 2010 for criticism.) Truckenbrodt (2006ab) implements the connection

that these clauses contain and then I show how such semantic mood co-determines the possible content in C.

Example (417a) clearly presupposes that Otto did not arrive in time, indicating that there must be a counterfactual mood marker in this clause, implemented by means of the lexical entry in (418a). Similarly, (417c) presupposes that Otto did arrive in time, which I implement in terms of a factive mood marker, (418c). Finally, (417b) is non-counterfactual and non-factive; whether Otto arrived in time or not is unresolved; we can assume that this construction contains unmarked mood (or *default* mood), (418b). The implicature that Otto may still have made it arises from the competition between (418b) and (418a); the implicature that it is not yet certain whether Otto has made it arises from the competition between (418b) and (418c). In the sense of Ritter & Wiltschko (2009, 2010), semantic mood serves to anchor a proposition with respect to the actual world. No more needs to be said at this point.

(418)a. $||\text{iMood}_{\text{CF}}||^c = \lambda p\,.\,\lambda w : p \cap \text{Dox}_{\text{speaker}}(w) = \varnothing\,.\,p(w)$ COUNTERFACTUALITY[86]

"The speaker presupposes *p* to be false."

b. $||\text{iMood}_{\text{DEF}}||^c = \lambda p\,.\,\lambda w\,.\,p(w)$ UNMARKED MOOD

($\text{iMood}_{\text{DEF}}$ does not trigger any presuppositions with respect to the truth or falsity of *p*)

c. $||\text{iMood}_{\text{FACT}}||^c = \lambda p\,.\,\lambda w : \text{Dox}_{\text{speaker}}(w) \subseteq p\,.\,p(w)$ FACTIVITY[87]

"The speaker presupposes *p* to be true."

---

to illocutionary force by linking German V-to-C movement to *belief states*; Portner (2006), in his reply, argues for a link between German V-to-C movement and (semantic) mood. On the one hand, I see myself as pursuing the Portner-Truckenbrodt vision of linking V-to-C movement to belief states/mood. On the other hand, I see myself as continuing the tradition of linking V-to-C movement to something tense-related (taking into account the Tense-Aspect-Mood connection).

[86] The distinction between $\text{Mood}_{\text{CF}}$ and $\text{Mood}_{\text{DEF}}$ as the marked and unmarked mood respectively mirrors the standard view on (marked) subjunctive versus (unmarked) indicative conditionals, cf. Stalnaker (1975), von Fintel (1997), but criticized in Leahy (2011). There is an open question whether any clauses ever convey strict counterfactuality, cf. Biezma (2011b), who argues, against Iatridou & Embick (1994), that subjunctive conditionals are never truly *counterfactual*. A slight modification of my system would posit $\textit{iMood}_{\text{PROTO-CF}}$, which simply indicates remoteness of the modified proposition from the actual world (as suggested by Schlenker 2004 for counterfactual conditionals), and not falsity of the modified proposition. For simplicity, I will maintain the analysis in (418a), as it is not crucial to the core of my analysis how this issue should be resolved.

[87] The idea that there is a separate *factive* mood that may find expression by virtue of a complementizer is supported by the observation that Modern Greek has a specialized factive complementizer *pu* 'that', which contrasts with the neutral complementizer *oti* 'that', e.g. Roussou (2010).

While it is trivial that semantic mood co-determines m-mood (both $iMood_{DEF}$ and $iMood_{FACT}$ employ the indicative, whereas $iMood_{CF}$ employs the subjunctive), my proposal holds that semantic mood also co-determines what material shows up in C.

Evidence for this proposal stems from the difference between the three exclamations with respect to what they allow in their C position. What (419)-(423) show is that semantic mood correlates with complementizer selection and the possibility of V1. First, we observe in (419) that exclamations with counterfactual mood ($iMood_{CF}$) allow for *dass* 'that', *wenn* 'if' and V1.

(419) *subjunctive (and **counterfactual**) optatives*

| | | | | | | |
|---|---|---|---|---|---|---|
| a. | **Daß** | er | nur | rechtzeitig | gekommen | **wäre**! |
| | that | he | only | in.time | come | were |
| b. | **Wenn** | er | nur | rechtzeitig | gekommen | **wäre**! |
| | if | he | only | in.time | come | were |
| c. | **Wäre** | er | nur | rechtzeitig | gekommen | $t_{wäre}$! |
| | were | he | only | in.time | come | |

'If only he **had** arrived in time!'

The most striking contrast is between (419) and (420). The pattern in (420) suggests that exclamations with default mood ($iMood_{DEF}$) require *dass* 'that' or *wenn* 'if' and disallow V1.

(420) *indicative (and **non-counterfactual / non-factive**) optatives*

| | | | | | | |
|---|---|---|---|---|---|---|
| a. | **Daß** | er | nur | rechtzeitig | gekommen | **ist**! |
| | that | he | only | in.time | come | is |
| b. | **Wenn** | er | nur | rechtzeitig | gekommen | **ist**! |
| | if | he | only | in.time | come | is |
| c.* | **Ist** | er | nur | rechtzeitig | gekommen | $t_{ist}$! |
| | is | he | only | in.time | come | |

'If only he **has** arrived in time!'

The contrast between (419) and (420) is not trivial, as German does otherwise allow for V1 in indicative conditionals, as shown in (421).

(421) *conditional inversion in indicative conditionals*

a. **Wenn** er rechtzeitig gekommen **ist**, dann hat das Fest schon begonnen.
if he in.time come is then has the party already started

b. **Ist** er rechtzeitig gekommen $t_{ist}$, dann hat das Fest schon begonnen.
is he in.time come then has the party already started

'If he has arrived in time, then the party has already started by now!'

How to account for the difference between (419) and (420) emerges as a puzzle. Why do counterfactual optatives allow for V1, while non-counterfactual optatives do not? By linking C to semantic mood, we now have a solution. Example (419) involves counterfactual mood features, whereas (420) involves default mood. In exclamations, these seem to behave differently, giving rise to the generalization in (422). (For indicative conditionals, I follow Reis & Wöllstein 2010, who propose that we may be dealing with an interrogative clause adjoined to a matrix clause, based on Haiman 1978, Traugott 1985, Reich 2009. See section 5.3.1 for a discussion of mood in interrogatives.)

(422) *generalization on C filling and semantic mood in exclamations (first version)*

a. LF: C + [iMood$_{CF}$] ⇔ PF: {*dass* 'that', *wenn* 'if', V1}

b. LF: C + [iMood$_{DEF}$] ⇔ PF: {*dass* 'that', *wenn* 'if'}

Let us now turn to polar exclamatives, the third type of exclamation that I study. Here, again, a different pattern emerges, corroborating the view that C selection / V1 correlates with semantic mood. As we see in (423), polar exclamatives allow for *dass* 'that' and V1, but not for *wenn* 'if'. This gives rise to the revised generalization in (424).

(423) *indicative (and **factive**) polar exclamatives*

a. **Daß** er doch glatt rechtzeitig gekommen **ist**!
that he doch outright in.time come is

b.* **Wenn** er doch glatt rechtzeitig gekommen **ist**!
if he doch outright in.time come is

c. **Ist** er doch glatt rechtzeitig gekommen $t_{ist}$!
is he doch outright in.time come is

'[I'm shocked] that he came in time!'

(424) *generalization on C filling and semantic mood in exclamations (second version)*

a. LF: C + [iMood$_{CF}$] ⇔ PF: {*dass* 'that', *wenn* 'if', V1}

b. LF: C + [iMood$_{DEF}$] ⇔ PF: {*dass* 'that', *wenn* 'if'}

c. LF: C + [iMood$_{FACT}$] ⇔ PF: {*dass* 'that', V1}

Notably, we can observe that these patterns really correlate with semantic mood and not with m-mood. If we interpret a polar exclamative with respect to a counterfactual context, via implicit conditionalization, the semantic mood would still be factive (given that it is presupposed to be true that the denoted proposition would hold in the counterfactual circumstances). The pattern in (425) mirrors the factive pattern in (423) and not the counterfactual pattern in (419). I propose that this follows, as the selection of material in C is co-determined by the semantic mood of the clause (and not by the m-mood on the verb).

(425) ***(factive)** polar exclamatives in the subjunctive*

Stell dir vor wir hätten ihn nicht am Ende aufgehalten.
imagine you V.PRT we had him not in.the end stopped
'Imagine we hadn't stopped him in the end!'

a. **Daß** er doch glatt rechtzeitig gekommen **wäre**!
that he doch outright in.time come were

b.* **Wenn** er doch glatt rechtzeitig gekommen **wäre**!
if he doch outright in.time come were

c. **Wäre** er doch glatt rechtzeitig gekommen $t_{wäre}$!
were he doch outright in.time come

'[I'm shocked] that he would have come in time!'

Concluding this section, (426) summarizes the distribution of different complementizers and/or V1 in different exclamations.

(426)

| | **daß** | **wenn** | **V1** | structure |
|---|---|---|---|---|
| $iMood_{FACT}$ | ✓ | × | ✓ | polar exclamative |
| $iMood_{CF}$ | ✓ | ✓ | ✓ | counterfactual optative |
| $iMood_{POSS}$ | ✓ | ✓ | × | non-counterfactual optative |

Having argued that semantic mood co-determines not only m-mood on the verb but also the nature of overt material in C, the following section argues such split markings of TAM-information can be found in other areas of grammar as well, indicating that this is not an isolated phenomenon.

### 5.1.4 Generalized split-TAM

This section focuses on an analogous phenomenon with respect to tense marking. As we have seen split-mood-realization, I show that we also find split-tense-realization. This observation further corroborates the idea that overt material in C is connected to information in the INFL domain.

In German temporal adjuncts, the temporal non-conditional variant of *wenn* 'when' co-occurs with non-past tense marking on the verb, (427a), whereas *als* 'when' correlates with past tense marking, (427b).

(427) a. **Wenn/*Als** du morgen ankommst, schlafe ich wahrscheinlich schon.
when you tomorrow arrive sleep I probably already
'When(/#If) you arrive tomorrow, I'll probably be asleep already.'

b. **Als/*Wenn** du gestern angekommen bist, habe ich schon geschlafen.
when you yesterday arrived are have I already slept
'When(/#If) you arrived yesterday, I was already asleep.'

Notably, German present tense (on the inflected verb or auxiliary) is ambiguous between a present progressive, a narrative past and a futurate interpretation. (In this sense, it is the most unmarked tense form.) What is important is that *als* 'when' can disambiguate a

present tense adjunct clause towards a past tense interpretation, whereas *wenn* 'when' disambiguates an identical clause towards the future. (Example (428a) is a naturally occurring example from http://redfoxtravelbox.wordpress.com/ – (428b) is a minimally contrasting example that I constructed.)

(428) a. **Als** ich ankomme, ist es wieder Mitternacht.
when I arrive is it already midnight
'When I arrive *(narrative present = past)*, it is already midnight again.'

≈ 'When I **arrived**, it **was** already midnight again.'

⇒ There is a past time t, such that I arrived at t and it was already midnight at t.

≠ #'When I **arrive**, it **will** already **be** midnight again.'

b. **Wenn** ich ankomme, ist es wieder Mitternacht.
when I arrive is it already midnight
'When I arrive *(futurate present = future)*, it is already midnight again.'

≈ 'When I **arrive**, it **will** already **be** midnight again.'

⇒ There is a future time t, such that I arrive at t and it is already midnight at t.

≠ #'When I **arrived**, it **was** already midnight again.'

Here, C alone serves to disambiguate between two distinct temporal interpretations of the clause (semantically interpreted past and semantically interpreted future). This is reminiscent of the pattern in section 5.1.3. Based on the above discussion, we can construct a similar example, where complementizer selection alone serves to disambiguate semantic mood in optatives. Ignoring for now the correlations between optativity and non-factivity, and between polar exclamative readings and factivity, (429) shows that indicative exclamatives are disambiguated towards default mood when they contain *wenn* 'if' (as *wenn* 'if' is incompatible with factive), (429a), and towards factive mood when they involve V1 (as V1 is incompatible with default mood), (429b).

(429)a. Oh, **wenn** es jetzt nur/*doch tatsächlich geregnet **hat**!
oh if it now only/*doch indeed rained has
'Oh, if only it rained now!'

⇒ ✓ $iMood_{DEF}$ (+ optative interpretation)

⇒ * $iMood_{FACT}$ (+ polar exclamative interpretation)

b. Oh, **hat** es jetzt doch/*nur tatsächlich geregnet $t_{hat}$!
oh has it now doch/*only indeed rained
'Oh, that it really rained after all!'

⇒ * $iMood_{DEF}$ (+ optative interpretation)
⇒ ✓ $iMood_{FACT}$ (+ polar exclamative interpretation)

In brief, (428) instantiates a contrast for tense that is similar to the contrast (429) instantiates for mood. A similar point is made by (430), where, once again, it can be assumed that different shades of semantic mood may be responsible for the different likelihood presuppositions that the respective conditional conveys (cf. Reis & Wöllstein 2010 for a recent discussion of *wenn* 'if, when' versus *falls* 'if, in case').

(430) a. **Wenn** Otto kommt, gehe ich.
if Otto comes go I
'If Otto comes (**which is quite plausible**), I'm leaving.'

b. **Falls** Otto kommt, gehe ich.
if Otto comes go I
'If Otto comes (**which I acknowledge to be rather unlikely**), I'm leaving.'

To conclude this section, I propose that quite generally C agrees for Tense and Mood information with the respective heads in the INFL layer. This gives rise to particular patterns of overt information in the C position.

### 5.1.5 Syntactic implementation – On Mood movement and V1

I continue to focus on exclamations and propose that the free variation in C that we partly observe derives from the following assumptions. First, C and Mood/T must always share information via agreement; what is important for the patterns in exclamations is agreement between C and Mood. Second, the different options that we observe are connected to the presence/absence of movement. My proposal is inspired by Pesetsky & Torrego (2001), who argue that English *that* and *for* spell out tense features that have

moved from T-to-C without the auxiliary[88]. I argue that there are three options that can be observed in German exclamations, summarized in (431); in words, the material in C depends on what (if anything) has moved to C from the INFL layer[89]. We can implement this as in (432).

(431) a. *dass* 'that' spells out C on its own.
b. *wenn* 'if' spells out [C [Mood]].
c. *V1* spells out [C [ T [Mood]]].

First of all, Tense always contains interpretable [iT] features and Mood always contains interpretable [iMood] features, with values as given above (in (418)). Similarly, C always contains uninterpretable [uMood] features and Mood always contains uninterpretable [uT] features. Therefore, we always generate an agreement chain between C and Mood, as well as between Mood and T. Such agreement is sometimes accompanied by movement, which we can implement by means of an EPP feature, as is common practice. We can then sketch the relevant aspects of derivations as in (432). (I assume that m-mood on the tense auxiliary in (432b) is a reflex of Tense agreement between Mood and T.)

(432) a. $C_{[uMood, -EPP]} \ldots Mood_{[iMood, uT, +EPP]} \ldots T_{[iT]}$
$\Rightarrow C_{[\sout{uMood}]} \ldots T_{[iT]} + Mood_{[iMood, \sout{uT}]} \ldots \langle T_{[iT]} \rangle$
*spell-out:* $C_{[\sout{uMood}]} \Leftrightarrow$ *dass* 'that'

b. $C_{[uMood, +EPP]} \ldots Mood_{[iMood, uT, -EPP]} \ldots T_{[iT]}$
$\Rightarrow Mood_{[iMood, \sout{uT}]} + C_{[\sout{uMood}]} \ldots \langle Mood_{[iMood, uT]} \rangle \ldots T_{[iT]}$
*spell-out:* $Mood_{[iMood, \sout{uT}]} + C_{[\sout{uMood}]} \Leftrightarrow$ *wenn* 'if'

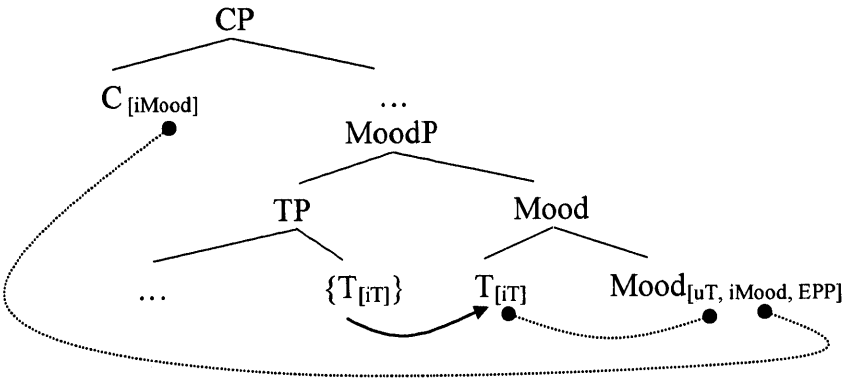
c. $C_{[uMood, +EPP]} \ldots Mood_{[iMood, uT, +EPP]} \ldots T_{[iT]}$
$\Rightarrow C_{[uMood, +EPP]} \ldots T_{[iT]} + Mood_{[iMood, \sout{uT}]} \ldots \langle T_{[iT]} \rangle$
$\Rightarrow [T_{[iT]} + Mood_{[iMood, \sout{uT}]}] + C_{[\sout{uMood}]} \ldots \langle T_{[iT]} + Mood_{[iMood, \sout{uT}]} \rangle \ldots \langle T_{[iT]} \rangle$
*spell-out:* $[T_{[iT]} + Mood_{[iMood, \sout{uT}]}] + C_{[\sout{uMood}]} \Leftrightarrow$ V1

---

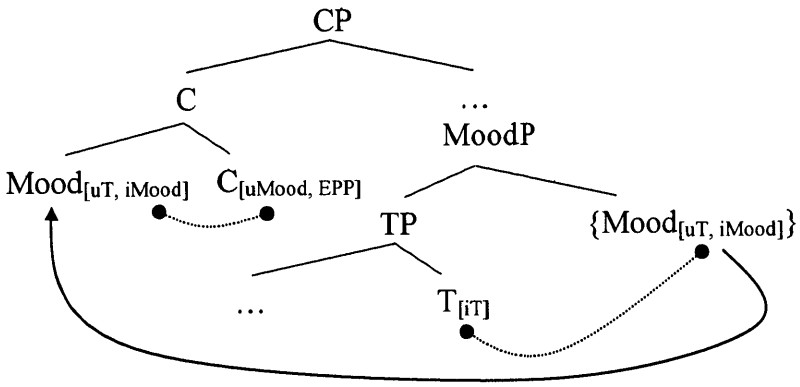
[88] Especially for the purposes of V1, my proposal is further inspired by Koeneman (2000, 2010) and Bury (2003, 2010) who assume that Tense (which they believe to be the trigger for Germanic V2 and V1) originates in a lower and must be brought into a higher position, giving rise to verb movement. I make an analogous assumption for Mood.
[89] See also Bjorkman (2011) for a related account of *conditional inversion*.

An illustration of the finished derivations can be given as in (433)[90].

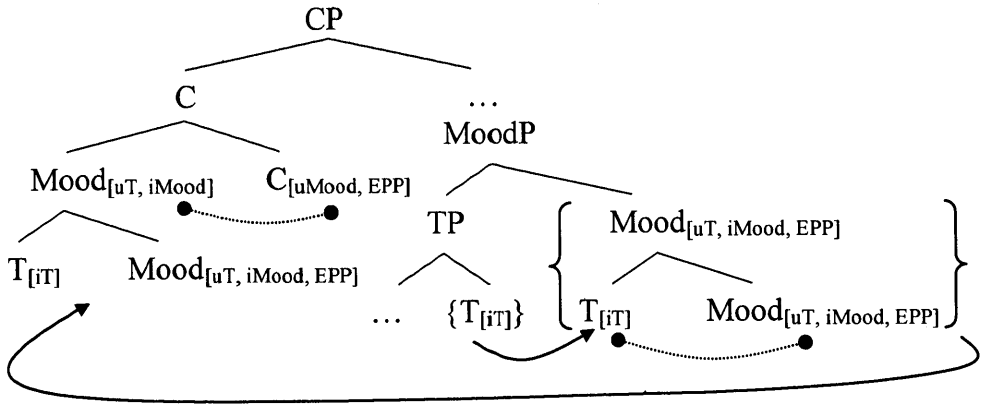
(433) a. *dass-scenario (curly brackets mark the base position of moved elements)*




b. *wenn-scenario*




c. *V1-scenario*




[90] These graphs assume the copy theory of movement. As de Vries (2009) shows, an implementation of head movement is also possible in a theory that assumes internal and external remerge instead.

Having thus established a system for complementizer selection, we can restate the generalization from (426) in (434).

| (434) | feature specifications | spell-out | compatible Mood values in exclamations |
|---|---|---|---|
| | $C_{-EPP}$ ... $Mood_{+EPP}$ | *dass* | CF, DEF, FACT |
| | $C_{+EPP}$ ... $Mood_{-EPP}$ | *wenn* | CF, DEF (*FACT) |
| | $C_{+EPP}$ ... $Mood_{+EPP}$ | Verb-First | CF, FACT (*DEF) |

What we observe in (434) is that *dass* 'that' seems to be the elsewhere case. Contrastively, cases where both C and Mood have the EPP property require a commitment on part of the speaker as to whether the denoted proposition is true (FACT) or false (CF). Finally, cases where only C has the EPP property disallow certainty (i.e. FACT is blocked). How can we derive these facts? Let me revisit the pattern from temporal adjunct clauses.

To do so, consider the following example of Dutch narrative inversion, in (435). Zwart (1997) conjectures (in footnote 28, page 219) that text-initial clauses (i.e. story openings) with narrative inversion are typically adjunct clauses, as such opening sentences require a subsequent main clause. I concur with this view and propose that temporal adjunct clauses also exhibit a tripartite pattern in C, very much similar to what we find in exclamations. This is illustrated in (436).

(435) Speel ik een aas, speelt mijn partner opeens troef.
play I an ace plays my partner at.once trump
'I played an ace. Then suddenly my partner trumped.'
(Zwart 1997:219)

To explore the C-INFL link further, we establish the paradigm in (436) for German (which allows for narrative inversion on a par with Dutch, e.g. Önnerfors 1997ab).

(436)a. **Wenn** ich ein Ass aus**spiele**, übertrumpft mich mein Partner sofort.
when I an ace play trumps me my partner at.once
'When I play an ace, my partner trumps instantly.' *(non-past, futurate present)*

b. **Als** ich ein Ass ausspiele, übertrumpft mich mein Partner sofort.
when I an ace play trumps me my partner at.once
'When I played an ace, my partner trumps instantly.' *(past, narrative present)*

c. **Spiele** ich ein Ass aus + $t_{spiele}$, übertrumpft mich mein Partner sofort.
play I an ace V.PRT trumps me my partner at.once
'When I played an ace, my partner trumps instantly.' *(past, narrative inversion)*

Without going into the intricacies of temporal adjunct clauses, it seems plausible to assume that *als* 'when' is a realization of C on its own, whereas *wenn* 'when' and V1 involve movement. I will come back to this briefly. First of all, it is worth pointing out that (as Zwart 1997 observes) generic conditional-like statements are possible with *wenn*-clauses, like (436a)+(437a), and with clauses that involve verb-first, like (436c)+(437c). Temporal *als*-clauses cannot be used in a generic way, (437b).[91]

(437) a. **Wenn** ich ein Ass ausspiele, übertrumpft mich mein Partner immer.
when I an ace play trumps me my partner always
'Whenever I play an ace, my partner trumps.' *(non-past, generic)*

b.* **Als** ich ein Ass ausspiele, übertrumpft mich mein Partner immer.
when I an ace play trumps me my partner always
'Whenever I played an ace, my partner trumps.'

c. **Spiele** ich ein Ass aus + $t_{spiele}$, übertrumpft mich mein Partner immer.
play I an ace V.PRT trumps me my partner always
'Whenever I played an ace, my partner trumps.' *(non-past, generic)*

The generalization for such adjunct clauses emerges as in (438). Somewhat simplistically, I again assume that *wenn* 'when' spells-out Mood movement, though I cannot go into the details of how Mood and Tense interact in such adjunct clauses.

| (438) | | feature specifications | spell-out | compatible Tense values in adjuncts |
|---|---|---|---|---|
| | a. | $C_{-EPP}$ ... $Mood_{+EPP}$ | *als* | PAST (narrative inversion) |
| | b. | $C_{+EPP}$ ... $Mood_{-EPP}$ | *wenn* | (GENERIC,) FUTURE |
| | c. | $C_{+EPP}$ ... $Mood_{+EPP}$ | Verb-First | (GENERIC,) PAST |

[91] Of course a possible confound here is that it is not clear whether we are dealing with a generic temporal clause or with a conditional clause that has a quantificational adverb in the matrix clause.

If we compare this distribution to the one we found in exclamations, we observe a parallel that may be insightful. Let us gloss over the case where no movement to C takes place, namely (438a)+(439a), as independent constraints may be at stake here (exclamations and possibly complement clauses using this as the elsewhere case, while adjuncts cannot do this). Then we find that the difference between Mood moving on its own, (438b)+(439b), and Mood moving together with T, (438c)+(439c), shows one parallel across these two fundamentally different construction types, which I will now discuss.

| (439) | | feature specifications | spell-out | compatible Mood values in exclamations |
|---|---|---|---|---|
| | a. | $C_{-EPP}$ ... $Mood_{+EPP}$ | *dass* | CF, DEF, FACT |
| | b. | $C_{+EPP}$ ... $Mood_{-EPP}$ | *wenn* | CF, DEF |
| | c. | $C_{+EPP}$ ... $Mood_{+EPP}$ | Verb-First | CF, FACT |

While genericity and counterfactuality in the respective construction type is compatible with both movement of Mood and movement of Mood+T (indicating, for exclamations, that counterfactual iMood can come with or without an EPP property), this is not the case for other Mood values. Specifically, we observe that the future-oriented Mood values (e.g. DEF) come without an EPP property and the past oriented Mood values (e.g. FACT) come without an EPP property (unless C lacks the EPP property as well, in which case T-to-Mood movement may be enforced in order to avoid auxiliary proliferation)[92]. The crucial insight is summarized in (440). We can establish the generalization in (441).

| (440) | | feature specifications | spell-out | in exclamations | in adjunct clauses |
|---|---|---|---|---|---|
| | a. | $C_{+EPP}$ ... $Mood_{-EPP}$ | *wenn* | DEF, *FACT | FUTURE, *PAST |
| | b. | $C_{+EPP}$ ... $Mood_{+EPP}$ | Verb-First | FACT, *DEF | PAST, *FUTURE |

(441) (When C has the EPP property,) Mood behaves as follows:

i. When the clause exhibits future-orientation, Mood lacks the EPP property.

ii. When the clause exhibits past-orientation, Mood has the EPP property.

[92] I call DEF 'future-oriented', as it implies that the truth of the modified proposition is unresolved, and I call FACT 'past-oriented', as it presupposes that the truth of the modified proposition is resolved. It is not entirely clear why CF and FACT do not completely match in their behaviors.

The motivating data are repeated below in (442) and (443).

(442) *wenn-clauses must be future-oriented (unless they are counterfactual/generic)*

a. **Wenn** ich ein Ass ausspiele, übertrumpft mich mein Partner sofort.
when I an ace play trumps me my partner at.once
'When I play an ace, my partner trumps instantly.'

b. Oh, **wenn** mich mein Partner jetzt nur/*doch übertrumpft **hat**!
oh if me my partner now only/*doch trumps has
'Oh, if only my partner has trumped me now!'
⇒ future-oriented in the sense that I do not yet know what is the case

(443) *V1-clauses must be past-oriented (unless they are counterfactual/generic)*

a. **Spiele** ich ein Ass aus + $t_{spiele}$, übertrumpft mich mein Partner sofort.
play I an ace V.PRT trumps me my partner at.once
'When I played an ace, my partner trumps instantly.'

b. Oh, **hat** mich mein Partner jetzt doch/*nur übertrumpft $t_{hat}$!
oh has me my partner now doch/*only trumps
'Oh, [I'm surprised] that my partner has trumped me now!'
⇒ past-oriented in the sense that I already know that this is the case

Further support that *wenn* 'if, when' is generally future-oriented (modulo its compatibility with counterfactuality) stems from the following contrast. I can utter the *wenn*-clause in (444) if it's still an unresolved question whether the proposition in the *wenn*-clause is true or false. In contrast, I cannot utter it once it is already established to be true, as in (445b). In such a situation, (445a) must be used (as observed by Iatridou 1991 for English *since* versus *if*).

(444) *I don't know yet if I'm sick, but I'm feeling a bit odd, so I called a doctor:*

In einer halben Stunde kommt der Arzt vorbei.
in a half hour comes the doctor over
'In half an hour, the doctor will drop by.'

**Wenn** ich krank bin, kann ich heute nicht kommen.
if I sick am can I today not come
'If I'm sick, I cannot come in today.'

(445) *I'm calling in sick:*

a. **Da** ich krank bin, kann ich heute nicht kommen.
as I sick am can I today not come
'Since I'm sick, I cannot come in today.'

b.# **Wenn** ich krank bin, kann ich heute nicht kommen.
if I sick am can I today not come
'If I'm sick, I cannot come in today.'

So, why would T-to-Mood movement correlate with past-orientation or future-orientation in this way? I conjecture that the underlying factor is that past tense is non-modal and future tense is modal, e.g. Abusch (1985); this may entail that in the past tense, Tense and Mood automatically conflate into a single INFL (via T-to-Mood movement), whereas in the future tense such conflation is non-automatic (possibly due to the presence of the future modal *woll*) and thus blocked in exclamations and adjunct clauses with Mood-to-C movement. The presence of counterfactuality or genericity in a clause may override such a distribution (e.g. due to the requirement for fake past tense expression, cf. Iatridou 2000), eliminating the observed asymmetries.

The next step is to integrate my proposal both with the broader literature on semantic mood and m-mood, and with the broader literature on verb second, specifically Truckenbrodt (2006ab), who is an indirect predecessor of my proposal. Before I proceed to do so (in sections 5.2 and 5.3), I will further motivate the idea that *dass* 'that' and *als* 'when(past)' are realizations of *C*, whereas *wenn* 'if, when' involves Mood-to-C movement.

### 5.1.6 On the Content of C

In this section, I briefly discuss the differences and similarities between *dass* 'that' / *als* 'when' and *wenn* 'if, when'. I have argued that *wenn* 'if, when' involves movement of Mood, whereas *dass* 'that' and *als* 'when' spell out a C head in the absence of Mood movement. This view is supported by the formal and diachronic relations between these elements and other functional elements. Specifically, *dass* 'that' is formally and

diachronically related to the determiner and relative pronoun *das* 'the, that', (446), and *als* 'when' is related to the prepositional element *als* 'as, than', (447).

(446) a. Hans mag **das** Pferd.
Hans likes the horse
'Hans likes the horse.'

b. Ich sehe das Pferd [**das** Hans mag].
I see the horse that Hans likes
'I see the horse that Hans likes.'

(447) a. Ich kenne F. M., den Sänger von "Schizo", **als** einen ÖVP-Politiker.
I know F. M. the singer of Schizo as an OVP-politician
'I know F. M., the singer of the song "Schizo", as a politician in the ÖVP.'

b. Wir sind anders **als** die anderen.
we are different from the others
'We are different from the others.'

c. Das Ergebnis war anders **als** erwartet.
the result was different from expected
'The result was different from what we had expected.'

d. Otto ist größer **als** Maria.
Otto is tallar than Maria
'Otto is taller than Maria.'

e. **Als** Jugendlicher hat Otto gerne gefeiert.
as youth has Otto with.joy celebrated
'As a young lad Otto used to love to celebrate.'

f. Hans gilt **als** Spezialist in diesem Gebiet.
Hans counts as specialist in this area
'Hans counts as a specialist in this area.'

g. Sowohl Hans **als** auch Maria sind gekommen.
both Hans as also Maria are come
'Both Hans and Maria have come.'

In recent literature, it has often been suggested that it is no coincidence that nominal elements (like *das(s)* and *als*) lexicalize complementizer positions (e.g. Roussou 2010 for Greek). Rather, this is a consequence of the parallel between clauses (CPs) and extended noun phrases (DPs). It is thus plausible that *dass* 'that' and *als* 'when' are true

realizations of C. Similarly, the assumption that *wenn* 'if, when' in complementizer position involves movement stems is motivated by its formal and diachronic relation to the wh-element *wann* 'when', as in (448).

(448) a. **Wann** kommt er?
when comes he
'When is he coming?'

b. Ich weiß, **wann** er kommt.
I know when he comes
'I know when he's coming.'

Notably, it can be shown that *wenn* 'if, when' does not involve wh-movement but simply head movement, provided that it involves movement, as it cannot cross clause boundaries (as opposed to phrasal *wann* 'when'). Contrast (449a), with the wh-element *wann* 'when', with (449b), containing temporal *wenn* 'when', and (449c), with conditional *wenn* 'if'.

(449) a. **Wann** ?(immer) du losfährst, (?*dann) gehe ich schlafen. *wann-FR*
when always you drive.away then go I sleep
'When?(ever) you're leaving, (?*then) I will go to sleep.'

b. **Wenn** (*immer) du losfährst, (dann) gehe ich schlafen. *temporal*
when always you drive.away then go I sleep
'When you're leaving, (then) I will go to sleep.'

c. **Wenn** (*immer) du losfährst, (dann) gehe ich schlafen. *conditional*
when always you drive.away then go I sleep
'If you're leaving, (then) I will go to sleep.'

As shown in (450), *wann* 'when' allows for low construal in an embedded clause, (450a), which is not possible for temporal *wenn* 'when', (450b), or conditional *wenn* 'if', (450c).

(450) a. **Wann** immer du gesagt hast, dass du losfährst, gehe ich schlafen.
when always you said have that you drive.away go I to.sleep
'Whenever you **said** [that you're **leaving**], I will go to sleep.'

✓ *high construal* – ✓*low construal: "I will go to sleep when you're leaving."*

b. **Wenn** (*immer) du gesagt hast, dass du losfährst, gehe ich schlafen.
when always you said have that you drive.away go I to.sleep
'As soon as / When / Once you've **said** [that you're **leaving**], I will go to sleep.'

✓ *high construal* – * *low construal*

c. **Wenn** (*immer) du gesagt hast, dass du losfährst, gehe ich schlafen.
if always you said have that you drive.away go I to.sleep
'If you've **said** [that you're **leaving**], I will go to sleep.'

✓ *high construal* – * *low construal*

The contrast in (450) indicates that any movement that involves *wenn* 'if, when' should involve head movement, as opposed to wh-movement. This is consistent with a view under which *wenn* 'if, when' is a spell out of Mood-in-C, due to Mood-to-C movement (a type of head movement).

### 5.1.7 Interim Summary

In this section, I presented a proposal for how to analyze different presuppositions (e.g. counterfactuality, factivity) that we find in exclamations and how to account for complementizer selection and V1 in exclamations. I proposed (in section 5.1.3) that semantic mood is encoded by means of presupposition-triggering mood features and then argued (in section 5.1.4) that m-mood on the verb and the realization of material in C are consequences of a system where mood is overtly marked in two locations, C and INFL (the latter of which encompasses Mood and T). I presented a syntactic implementation in section 5.1.5 and reviewed further motivation in section 5.1.6. The larger goal of the following sections is to contextualize this proposal with respect to the larger literature on mood and mood selection, in section 5.2, as well as the literature on verb second in German, in section 5.3.

## 5.2 Mood Selection

### 5.2.1 Out in the Optative Left Field: An Apparent Selection Problem

In the previous section, I argued for a view where complementizer selection and V1 in German are due to the semantic mood that a clause contains, where semantic mood includes concepts such as counterfactuality and factivity. My analysis covers factive polar exclamatives, such as (451), *counterfactual optatives*, such as (452), and optatives that are neither factive nor counterfactual, such as (453).

(451) *indicative (and factive) polar exclamatives*

a. **Daß** Sie (doch / tatsächlich / wirklich) daran gedacht **haben**!
that you doch indeed really of.it thought have

b. **Haben** Sie doch (tatsächlich / wirklich) daran gedacht $\mathbf{t_{haben}}$!
have you doch indeed really of.it thought

'[It's remarkable] that you really thought of it!'

(452) *subjunctive (and counterfactual) optatives*

a. **Daß** er (doch) nur rechtzeitig gekommen **wäre**!
that he doch only in.time come were

b. **Wenn** er (doch) nur rechtzeitig gekommen **wäre**!
if he doch only in.time come were

c. **Wäre** er (doch) nur rechtzeitig gekommen $t_{wäre}$!
were he doch only in.time come

'If only he had come in time!'

(453) *indicative (and non-counterfactual / non-factive) optatives*

a. **Daß** er nur rechtzeitig **kommt**!
that he only in.time comes

b. **Wenn** er nur rechtzeitig **kommt**!
if he only in.time comes

'If only he comes in time!'

I have argued that all of these utterances contain a generalized exclamation operator *EX*, which combines with a contextually provided scale. This scale is a speaker-oriented preference scale in the case of optatives, and a speaker-oriented inverse likelihood scale (or unlikelihood scale) in the case of polar exclamatives. A generalization that arises at this point is that the combination of scale and mood does not seem entirely arbitrary. Specifically, preference scales (underlying optative utterances) correlate with non-factive mood, whereas unlikelihood scales (underlying polar exclamatives) correlate with factive mood, as given in (454).

(454)

| | **preference** | **unlikelihood** | example |
|---|---|---|---|
| factive | ? unattested? | ✓ | (451) |
| counterfactual | ✓ | ? unattested? | (452) |
| non-factive non-counterfactual | ✓ | ? unattested? | (453) |

The question arises whether there is anything that corresponds to the question marks in (454). Have we been just ignoring something that exists, or is there something deeply unnatural about 'factive optatives' and 'non-factive exclamations of surprise'[93].

Let me state the problem more clearly by looking at what my analysis currently derives. The following two examples recapitulate the meanings that I have proposed for the counterfactual optative, (452), and the factive surprise exclamation, (451). First, my analysis currently derives the perceived wish in an optative by virtue of the components in (455b+c), which give rise to the utterance meaning in (455d), with the communicative effect in (455e).

(455) *subjunctive (and counterfactual) optatives*

a. [$EX_{preferences}$ [$Mood_{CF}$ **(Wenn)** Otto nur rechtzeitig gekommen **wäre]]!**
if Otto only in.time come were
'If only Otto had come in time!'

[93] A connection between exclamatives and factivity has been at the core of research on degree exclamatives, as in Elliot (1971, 1974), Grimshaw (1979), Zanuttini & Portner (2000, 2003), Abels (2010).

b. $\text{Mood}_{CF} \Rightarrow$ (455a) is defined iff Otto-came-in-time $\cap$ $\text{Dox}_{speaker}(w) = \varnothing$

*in words:* "I presuppose that Otto didn't come in time."

c. $\text{EX}_{preferences} \Rightarrow$ (455a) is felicitous iff
$\forall q[\text{THRESHOLD}(c) >_{preferences} q \rightarrow \text{O-came-in-time} >_{preferences} q]$

*in words:* "I express my emotion towards the desirability of Otto having come in time."

d. **What the speaker conveys:**

I express my emotion towards the fact that [$_p$ Otto came in time] exceeds a salient threshold on my desirability scale, which marks the boundary between tolerable worlds (above) and intolerable worlds (below), and I presuppose that it is false that [$_p$ Otto came in time].

e. **What this entails on part of the speaker:**

I have an emotion towards the desirability of [$_p$ Otto came in time].
It is false that [$_p$ Otto came in time].
Therefore, I wish [$_p$ Otto came in time].

Similarly, my analysis derives surprise by virtue of the components in (456b+c), which give rise to the utterance meaning in (456d) to the effect of (456e).

(456) *indicative (and factive) polar exclamative*

a. [$\text{EX}_{unlikelihood}$ [$\text{Mood}_{FACT}$ **(Dass)** Otto glatt rechtzeitig gekommen **ist]]!**
that Otto outright in.time come is
'That Otto really came in time!'

b. $\text{Mood}_{FACT} \Rightarrow$ (456a) is defined iff $\text{Dox}_{speaker}(w) \subseteq$ Otto-came-in-time

*in words:* "I presuppose that Otto did come in time."

c. $\text{EX}_{unlikelihood} \Rightarrow$ (456a) is felicitous iff
$\forall q[\text{THRESHOLD}(c) >_{unlikelihood} q \rightarrow \text{O-came-in-time} >_{unlikelihood} q]$

*in words:* "I express emotion towards the unlikelihood of Otto having come in time."

d. **What the speaker conveys:**

I express my emotion towards the fact that [$_p$ Otto came in time] exceeds a salient threshold on my inverse likelihood scale, which marks the boundary between surprising worlds (above) and unsurprising worlds (below), and I presuppose that it is true that [$_p$ Otto came in time].

e. **What this entails on part of the speaker:**

I have an emotion towards the surprisingness of [$_p$ Otto came in time].
It is true that [$_p$ Otto came in time].
Therefore, I am surprised that [$_p$ Otto came in time].

Now we can state the problem explicitly. Are there utterances that have the combinations in (457a) or (458a), giving rise to the conversational effect in (457b) or (458b) (note the unclarity of how best to express (458b), marked by three exclamation marks, '**???**').

(457) *schema of a factive optative*

a. [$EX_{preferences}$ [$Mood_{FACT}$ $\phi$]]!

b. **What this entails on part of the speaker:**

I have an emotion towards the desirability of [$_p$ Otto came in time].
It is true that [$_p$ Otto came in time].
Therefore, I am glad that [$_p$ Otto came in time].

(458) *schema of a counterfactual surprise exclamation*

a. [$EX_{unlikelihood}$ [$Mood_{CF}$ $\phi$]]!

b. **What this entails on part of the speaker:**

I have an emotion towards the surprisingness of [$_p$ Otto came in time].
It is false that [$_p$ Otto came in time].
Therefore, I am **???** that [$_p$ Otto came in time].

To summarize, the puzzle that we face is whether the prototypical combinations of exclamatory scales (i.e. the scales that *EX* combines with) and semantic mood should be considered a true fact about language, and if so, how we could possibly derive them under a view that does not render *EX* mood-sensitive.

### 5.2.2 Towards a solution

In order to tackle this problem, we could simply stipulate a solution in which different scales must co-occur with different moods, by virtue of syntactic agreement / selectional restrictions. This is clearly a last resort, as it lacks insight, which is why I will not be addressing it in detail. A sketch of how it would be implemented is given in (459).

(459) a. *indicative (and factive) polar exclamatives*

LF: [[EX $\text{Scale}_{\text{speaker-unlikelihood}}$] [$\text{iMood}_{\text{FACT}}$ [$_{p}$ Otto came in time]]]

*selects / agrees*

b. *subjunctive (and counterfactual) optatives*

LF: [[EX $\text{Scale}_{\text{speaker-preference}}$] [$\text{iMood}_{\text{CF}}$ [$_{p}$ Otto came in time]]]

*selects / agrees*

The question arises whether we can exclude certain scale-mood combinations on more principled grounds – and whether we even need to. Let me first discuss the possibility of counterfactual exclamations of surprise, as sketched in (460), repeated from (458). For completeness' sake, it is worth also considering the possibility of non-factive non-counterfactual surprise, as given in (461). An immediately evident problem here is that such an expression seems somewhat inconsistent with any conceivable communicative goals. Why would a speaker wish to convey an emotion towards how surprising *Otto's coming in time* is (quite generally) if it is established that *Otto didn't come in time*, as in (460a); in fact, as shown in (460b), we are hard-pressed to even come up with a felicitous paraphrase. The paraphrase *I would be surprised if ...* does not capture the meaning of (460a), as $EX_{\text{unlikelihood}}$ conveys a current emotion towards the surprisingness of $\phi$, not a 'displaced' emotion. The same logic applies to (461). It is thus plausible that non-factive 'exclamations of surprise' are nonsensical from a perspective of communicative goals. It may then well be that $EX_{\text{unlikelihood}}$ and $Mood_{\text{CF}}$ can combine, but that they simply fail to combine, as there is no reason to do so.

(460) *schema of a counterfactual surprise exclamation*

a. $[EX_{unlikelihood}\ [Mood_{CF}\ \phi]]!$

b. **What this entails on part of the speaker:**

I have an emotion towards the surprisingness of [$_p$ Otto came in time].
It is false that [$_p$ Otto came in time].
Therefore, I am **???** that [$_p$ Otto came in time].

(461) *schema of a non-factive non-counterfactual surprise exclamation*

a. $[EX_{unlikelihood}\ [Mood_{DEF}\ \phi]]!$

b. **What this entails on part of the speaker:**

I have an emotion towards the surprisingness of [$_p$ Otto came in time].
It is unresolved whether [$_p$ Otto came in time].
Therefore, I am **???** that [$_p$ Otto came in time].

This leads us to the other side of the coin, which is much more difficult to account for. A factive optative would have the communicative effect in (462), repeated from (457).

(462) *schema of a factive optative*

a. $[EX_{preferences}\ [Mood_{FACT}\ \phi]]!$

b. **What this entails on part of the speaker:**

I have an emotion towards the desirability of [$_p$ Otto came in time].
It is true that [$_p$ Otto came in time].
Therefore, I am glad that [$_p$ Otto came in time].

As opposed to non-factive exclamations of surprise, nothing is inconsistent about (462). In fact, we can imagine factive expressions of desirability quite easily, as in (463).

(463) a. Phew … John came in time.

b. Excellent! John came in time.

The question is whether we ever find factive optatives that have the hallmark features of a typical *EX* utterance in the language they occur in. In German, we have seen that *EX*

utterances typically take the shape of *if*-clauses, *that*-clauses and V1-clauses. Can any of these serve as factive optatives?

As we know that $\text{Mood}_{\text{FACT}}$ is incompatible with *wenn* 'if', we need to look at *dass*-exclamations and possibly at V1-exclamations. The crucial question may go along the following lines: Does an utterance like (464a) (or a similar utterance) have an optative reading as given in (464c)? (I include the South German generalized interjection *mei* 'my', which often correlates with positive or negative evaluation, to make a possible optative reading more salient.)

(464) a. Mei, dass es jetzt DOCH geregnet hat!
my that it doch indeed rained has
*lit.* 'My, that it rained after all!'

b. *polar exclamative reading:* '[I'm surprised] that it rained after all!'

c. *intended optative reading:* '[I'm glad] that it rained after all!'

Certainly, (464a) can be paired with an expression of approval, (465a), but it can just as well be combined with an expression of disapproval, (465b). The most natural view on (465a+b) is that the *dass*-exclamation simply expresses surprise without evaluation.

(465) a. Mei, dass es jetzt DOCH geregnet hat! Das ist aber **schön**!
my that it doch indeed rained has that is but beautiful
*lit.* 'My, that it rained after all! That's really nice!'

b. Mei, dass es jetzt DOCH geregnet hat! Das ist aber **blöd**!
my that it doch indeed rained has that is but stupid
*lit.* 'My, that it rained after all! That's really bad!'

So, can we construct any examples of this type that express positive evaluation and do not express surprise? As it stands, it is not clear that such constructions exist, so we cannot easily explain away the observed gap in the paradigm of $EX_S$-Mood combinations (i.e. the non-existence of factive optatives). It is useful to point out that this is not a distinguished problem for my account, but a more general problem that arises whenever we are dealing with root clauses that have the structure of unembedded clauses. For

instance, a matrix clause deletion approach falls short of explaining the non-existence of *I'm glad* exclamations just as much as the *EX*-Operator account does, as illustrated in (466).

(466)*predicted by a matrix-clause deletion approach*

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Mei, | ~~ich bin froh~~ | dass | es | jetzt | DOCH | geregnet | hat! |
| my | I am glad | that | it | doch | indeed | rained | has |

*lit.* 'My, [I'm glad] that it rained after all!'

Before moving on, it is worth noting a consequence of my proposal in chapter 6.3 below; I suggest in chapter 6.3 that exclamations with concessive *wenigstens* 'at least' may be restricted to using a preference scale, i.e. *wenigstens* 'at least' may block a non-optative reading and require an optative reading. In this sense, the V1-clauses in (467) (preceded by the interjection *mei* 'my') may be instances of factive optatives.

(467)a. Jo **mei, hast** du **wenigstens** gleich gesehen wie man bequem
well my have you at.least at.once seen how one comfortably
einen Spannungsteiler baut.
a voltage.divider builds
'Well, my, at least you learned at once how to comfortably build a voltage divider.'
(http://www.downhill-board.com/51960-alte-installatione-pen-leiter.html)

b. aber **mei, hat** er **wenigstens** löten geübt
but my has he at.least to.solder practiced
'But, my, at least he practiced soldering!'
(http://www.modding-faq.de/Forum/index.php?action=profile;u=1769;sa=showPosts)

The following constructed (V1-)example shows that such utterances may imply desirability of the denoted proposition, as indicated in (468d), without implying its surprisingness, as shown in (468c). So, these utterances may be true examples of factive optatives.

(468) a. A: Die Hochzeit gestern war so fad.
the wedding yesterday was so boring
'The wedding yesterday was so boring.'

b. B: Jo **mei, hast** du **wenigstens** den Bruder vom Otto kennengelernt!
yes my have you at.least the brother of Otto met
'Well, [it's good that] at least you met the brother of Otto's!'

c. B: ... also war's eh genau so, wie wir's uns erwartet hatten.
so was'it PRT just so as we'it us expected had
'So it was exactly the way we expected.'

d.# B: ... was natürlich auch schlecht war.
which naturally also bad was
'Which was naturally also bad.'

Notably, the evidence may be slightly inconclusive, as there are many open questions[94].

Therefore, let us now take a different perspective, and look at exclamations that express disapproval (which I dubbed *adversatives* in chapter 2). Maintaining a uniform *EX*-operator analysis to exclamations, it is plausible that (469) is an utterance that contains an *EX*-operator, combining with an inverse preference scale (i.e. a scale that models undesirability with respect to the speaker: the higher on the scale, the more undesirable). By virtue of *EX*, the speaker of (469) conveys that the hearer's being careless exceeds a salient threshold on a scale that represents inverse desirability, i.e. the hearer's being careless is *undesirable*.

(469) Dass du **aber** **auch** so leichtsinnig bist!
that you but also so careless are
'[It's bad] That you are so careless!'
(Scholz 1991:47,fn.89, who attributes this example to Oppenrieder 1989)

What is important is that such adversatives can typically be factive (though they may also be non-factive, plausibly combining with $\text{Mood}_{\text{DEF}}$, given that the complementizer *wenn* 'if' was licensed in adversatives, as we have seen in chapter 2).

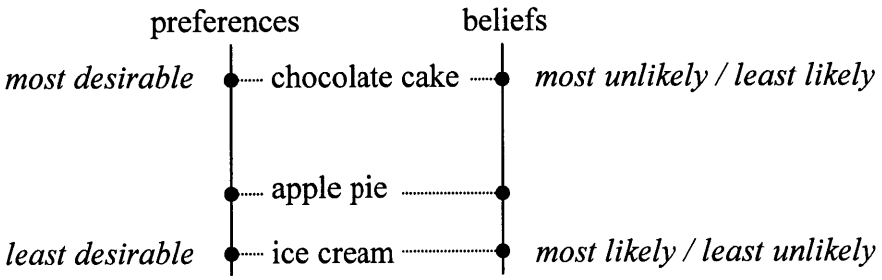
---

[94] For instance, the purported factive optatives in (467) and (468) do not seem to have *dass*-variants.

Reconsider Villalta's picnic scenario, from (343), repeated in (470). If Victoria is standing with a close friend when Sofia arrives, it seems perfectly felicitous for her to utter the adversative in (471), after they have both acknowledged that Sofia has brought vanilla ice cream again. In such a context, $\text{Mood}_{\text{FACT}}$ should (at least) be licensed.

(470) a. *Sofia may bring a chocolate cake, apple pie or ice cream to Victoria's picnic. It is extremely unlikely that Sofia brings chocolate cake, whereas it is most likely that she brings ice cream and somewhat less likely that she brings apple pie. Victoria prefers the chocolate cake to the apple pie by far, and she hates ice cream.*

b.




(adapted from Villalta 2007:102+103)

(471) Dass die **aber** **auch** immer Vanilleeis mitbringt!
that she but also always vanilla.ice.cream brings
'[I find it bad/disappointing] that she always brings vanilla ice cream!'

The view that (471) merely expresses disapproval (without a surprise component) is supported by the fact that it would seem odd for Victoria to express surprise in (470), as indicated in (472). A view that treats (471) as an adversative expression of unsurprised disapproval is also corroborated by the presence of the particles *aber auch* 'but also', which are prototypical of such disapproval exclamations, see Scholz (1991).

(472) *In the context described by (470) after Sofia has showed up with ice cream.*

a.# I'm surprised that she brought ice cream (again).

b.# I'm surprised that she's always bringing ice cream.

The fact that constructions like (471) are factive (and thus plausibly contains $Mood_{FACT}$) follows from the observation that the modified proposition cannot be called into question. In the adversative (473a), it is impossible to follow up by saying "which isn't certain yet", whereas this is perfectly fine in an optative like (473b) (though it may be slightly unnatural, as the non-certainty of the optative proposition may already follow as an implicature from uttering an optative).

(473) a. Dass die jetzt **aber auch** wieder Vanilleeis mitbringt! – # Was
that she now but also again vanilla.ice.cream brings what
natürlich noch nicht sicher ist.
naturally still not certain is
'[I find it bad/disappointing] that she brings vanilla ice cream again! – #which is, of course, not certain yet.'

b. Dass die jetzt **nur** wieder Vanilleeis mitbringt! – ✓Was natürlich
that she now only again vanilla.ice.cream brings what naturally
noch nicht sicher ist.
still not certain is
'[I hope] that she brings vanilla ice cream again! – ✓which is, of course, not certain yet.'

This slightly changes the picture of which *EX* - Mood combinations are possible. If we assume that optatives and adversatives use the same scale (a preference scale) with opposite polarity, we find that preference scales and inverse preference scales are in a partially complementary distribution with respect to their prototypical mood. Specifically, positive evaluation seems to be tied to non-factivity, and negative evaluation seems to be tied to non-counterfactuality. In the cases of default mood, both may be possible. Scholz (1991) discusses several cases of *wenn*-adversatives, which, given our insights from section 5.1, should be non-factive (as *wenn* 'if, when' is incompatible with $Mood_{FACT}$). We can thus establish the revised correlation in (474).

(474)

| **mood** | **preference** |
|---|---|
| factive | dispreference |
| non-factive non-counterfactual | (dis)preference |
| counterfactual | preference |

This begs the question of whether we find counterfactual polar exclamatives as well, if the relevant scale is a *likelihood* scale (rather than an *unlikelihood* scale). Recall that counterfactual polar exclamatives were the other unattested combination type. I propose that we do. A relevant candidate is example (475), which conveys that the *opposite* of the expressed (negative) proposition is the case, and which further conveys that the facts are surprising[95].

(475) a. Mensch, wenn das da drüben **nicht** der Otto ist!
man if this there over not the Otto is
*lit.* 'Man, if this is not Otto over there!'

b. *perceived meaning:* 'Man, [I'm surprised] that this is Otto over there!'

c. *not:* 'Man, [I'm surprised] that this is **not** Otto over there!'

I suggest that we should explore the idea of whether (475) may involve a likelihood scale in combination with counterfactual semantic mood (in spite of its indicative m-mood marking); this is schematized in (476).

(476) *schema of a if-not-exclamation*

a. $[EX_{likelihood}\,[Mood_{CF}\ \phi]]!$

b. **What this entails on part of the speaker:**

I have an emotion towards the high expectability of [$_p$ Otto is not over there].
It is false that [$_p$ Otto is not over there]. ⇒ It is true that [$_p$ Otto is over there].
Therefore, I am surprised that [$_p$ Otto is over there].

---

[95] See also Quirk et al. (1985) for corresponding English examples, illustrated in (i) and (ii).

i. Well, if it isn't the manager himself! ['It is indeed the manager himself!']
ii. Why, if it isn't Susan! ['It is indeed Susan!']
(Quirk et al. 1985:842)

If the analysis in (476) is on the right track, a revised correlation of *EX* scales and mood can be given as in (477).

(477)

| **mood** | **preference** | **likelihood** |
|---|---|---|
| factive | dispreference for ϕ | ϕ is unlikely |
| non-factive non-counterfactual | (dis)preference for ϕ | ? |
| counterfactual | preference for ϕ | ϕ is likely |

A tentative conclusion may then be that negatively oriented scales (conveying the violation of an expectation or preference) preferably combine with factive mood, whreas positively oriented scales (conveying the satisfaction of an expectation or preference) combine with counterfactual mood (or possibly with non-factive non-counterfactual mood). I conjecture that this correlation may reflect a constraint on exclamations that we tend to exclamatively express an emotion towards a certain proposition if the facts do not comply with certain ideals or beliefs states (i.e. how things should be according to our desires and beliefs). If things are the way they should be (according to our desires and beliefs), exclamations that employ *EX* may simply not be warranted.

## 5.3 Mood, Exclamations and the Connection to Verb Second

In sections 5.1 and 5.2, I have formulated a proposal for the role that semantic mood plays in exclamations, both in co-determining which complementizer is selected / whether V1 order is possible and in giving rise to the presuppositions typically associated with an expression of surprise, hope or wishfulness. The purpose of this section is to integrate this proposal into the larger literature and show how it is compatible with other views. Most discussions of morphological mood, semantic mood and mood-related issues (such as the Greek factive complementizer *pu* 'that', cf. Roussou 1994, Varlokosta 1994) focus on embedded clauses, cf. Portner (1997), Giannakidou (1999, 2009), Quer (1998, 2001, 2009ab), Roussou (2009, 2010), Giorgi (2009), Giannakidou (2009), Kempchinsky (2009), Siegel (2009). Unembedded clauses are often covered by side-remarks. A link

between mood and V1 / V2 such as the one that I proposed has only be suggested recently, in Portner's (2006) response to Truckenbrodt's (2006ab) discussion of embedded verb second. Most of this section is dedicated to a discussion of how Truckenbrodt's insights can be translated into my system. I will then briefly review the difference between V1 and V2.

### 5.3.1 Truckenbrodt (2006ab) and Mood Management

Truckenbrodt (2006ab) proposes that (V-to-)Infl-to-C movement (i.e. V1 and V2) in German is always connected to (illocutionary) force-related features in C. His force-related features are the predecessors of my Mood features. From his perspective, they serve to co-determine illocutionary force potential by means of the presuppositions that they trigger. I refer to the main paper (Truckenbrodt 2006a) and the response to the commentators (Truckenbrodt 2006b) separately as Truckenbrodt revises relevant parts of his theory[96]. Truckenbrodt (2006a) characterizes the features in C as *context indices*, one of which is labeled *Epist*. *Epist* is the one that also occurs in embedded clauses; it requires that the expressed proposition is interpreted relative to some belief context $E$ of some individual $x$ in a world $w$, abbreviated as $E^w(x)$. Truckenbrodt (2006b) by and large eliminates the other context indices and reanalyzes *Epist* as a [±WH] feature with a similar semantic impact. The impact of [±WH] is given in (478); [±WH] is seen to typically trigger (V-to-)Infl-to-C movement. Truckenbrodt considers the *epistemic interpretation* principle the main result of his investigation.

(478) *Epistemic interpretation of* [±WH]

> A visible specification of [±WH] in C or SpecCP at LF triggers a presupposition that looks for an epistemic context. The proposition p is embedded in that epistemic context.
>
> (Truckenbrodt 2006b:395)

---

[96] As I take a different approach to unembedded *dass*-clauses and *wenn*-clauses, I will not review Truckenbrodt's view on such utterances (see Reis 2006 for some relevant criticism of applying Truckenbrodt's theory to *wenn*-clauses).

Rendered in my own approach to mood, we can view this epistemic feature as proto-assertive mood, which amounts to a presupposition that somebody believes, assumes, dreams, ... that the modified proposition is true. Let us define proto-assertivity as in (479).

(479) $||\text{iMood}_{\text{ASSERT}}||^c = \lambda p \,.\, \lambda w : E_c(w) \subseteq p \,.\, p(w)$ PROTO-ASSERTIVITY[97]

"It is presupposed that there is a salient epistemic context $E_c$ (i.e. somebody's beliefs, assumptions, dreams, ...), which embeds *p*."

Where can we see $\text{iMood}_{\text{ASSERT}}$ at work? Following Truckenbrodt, it is plausible that the presence of $\text{iMood}_{\text{ASSERT}}$ always requires (V-to-)T-to-C movement, i.e. in my rendering both C and Mood would have the EPP property. (Truckenbrodt 2006b assumes that V1 / V2 is triggered by a PF visibility requirement that requires [±WH] to associate with overt material at PF.)

Truckenbrodt (2006b), whose main objective is to derive the connection between illocutionary force and V1 / V2, posits the root rule in (480) (developed from Zaefferer 2001), which essentially encodes purposefulness and maps an utterance into a speech act. (*Deont*$_S$, which is modeled as a context index in Truckenbrodt 2006a, roughly translates to 'the speaker wants'.)

(480) *Root Rule*

Utterances (more generally: communicative acts) are interpreted as purposeful, i.e. expressing a volition on the part of the speaker: CG → CG + "Deont$_S$" (...). In the cases discussed here, the meaning of the utterance is interpreted in the scope of this volition, i.e. as part of "..." in the preceding formula..

(Truckenbrodt 2006b:394)

---

[97] As Portner (2006) points out, Truckenbrodt's *epistemic contexts* correspond to Giannakidou's (1999) *models* (e.g. $M_{\text{DREAMS}}$(jacob), the set of worlds compatible with Jacob's dreams) and Portner's (1997) *modal contexts* (e.g. $\text{Dox}_{\text{Maggie}}(w)$ = the set of worlds compatible with Maggie's beliefs in w). This correspondence holds for my mood features as well.

We can now give an illustration of Truckenbrodt's system, for a declarative assertion, in (481). He assumes that a clause like (481a) has the feature [–WH] in C, which triggers V2 movement; the expressed proposition is given in (481b). By virtue of (478), this proposition is embedded in an epistemic context, given in (481c); the root rule in (480) then triggers the update of the common ground by means of the embedded proposition, as in (481d).

(481) a. Es $_{[-WH]}$regnet. 'It is raining.'

b. $\lambda w.rain(w)$

c. *by Epistemic interpretation of* [±WH]

for some x, E in the context:
$\lambda a\ E^a(x) \subseteq \lambda w.rain(w)$
"S / A / … believes / knows / assumes … that it is raining."

d. *by Root Rule*

$CG \rightarrow CG + \lambda w'\ Deont_S^{w'}(\lambda a\ E^a(x) \subseteq \lambda w.rain(w))$
"S wants common ground [**that it is raining**]."
or also: "S wants that A know [**that S believes that it is raining**]."

For interrogatives, Truckenbrodt (2006b) assumes that they invoke the epistemic interpretation rule twice; they have a [+WH] feature associated with a question operator, and a [–WH] feature associated with C (developing an idea from Brandt et al. 1992:31f)).

(482) *V-to-C interrogatives*

a. [$_{SpecCP}$ $_{[+WH]}$**Wen** [$_{C'}$ $_{[-WH]}$**mag** [$_{TP}$ **Maria** $\mathbf{t_{mag}}$?]]]
'Whom does Maria like?'

b. [$_{SpecCP}$ $_{[+WH]}$ [$_{C'}$ $_{[-WH]}$**Mag** [$_{TP}$ **Maria Peter**?]]]
'Does Maria like Peter?'

(Truckenbrodt 2006b:398)

Both [+WH] and [–WH] simply trigger the search for an epistemic context. As a consequence of a pragmatic strategy of construing a coherent speech act, [+WH] is oriented towards the speaker (conveying that the speaker wants the true answer to

become part of the speaker's knowledge) and [–WH] towards the hearer (triggering the presupposition that the hearer knows the true answer).

Given the scope and focus of my dissertation, I am mainly interested in the idea that $iMood_{ASSERT}$ is the relevant mood both in assertions and in questions. In order to derive the right pragmatic effect, it seems appropriate to assume (in Truckenbrodt's 2006ab spirit) that $iMood_{ASSERT}$ always contributes the same presupposition, but the effect varies according to the utterance type. The contribution of $iMood_{ASSERT}$ is always that the modified proposition is embedded in some epistemic state. In declaratives, this epistemic state is by default oriented towards the speaker. In interrogatives, this epistemic state is by default oriented towards the hearer. Such a view is suggested by Zaefferer (2006), as in (483).

(483) *Content-type drivenness of the question-assertion distinction*

> The difference in structural meaning between declarative and interrogative sentences is the difference between different kinds of propositional content.
>
> (Zaefferer 2006:345)

I assume with Truckenbrodt (2006ab) that questions denote the true answer, i.e. a proposition (Groenendijk & Stokhof 1982)[98]. We can then give an analysis of assertions and questions as in (484) and (485) respectively, assuming my $iMood_{ASSERT}$ feature. Hearer/speaker orientation follows from the pragmatics of assertions and questions, cf. (483). It can be viewed as a precondition that an assertion is only felicitous if the speaker believes the truth of the asserted proposition; similarly, we will shortly review evidence that questions trigger a presupposition that someone (typically the hearer) knows the true answer. As shown in (484), a declarative assertion offers the denoted proposition, (484b), coupled with a presupposition that the speaker believes it to be true (a precondition for assertion), (484d).

[98] For background on question semantics see also Hamblin (1973), Karttunen (1977), Hintikka (1974), Bäuerle & Zimmermann (1991) and Groenendijk & Stokhof (1997).

(484) a. [$_{CP}$ Es [$_{C'}$ regnet$_{[iMood:ASSERT]}$ [$_{TP}$ $t_{es}$ [$_{VP}$ $t_{regnet}$]]].
it rains
'It is raining.'

b. *truth-conditional meaning:* λw.rain(w)

c. $iMood_{ASSERT}$ ⇒ There is a contextually salient epistemic context $E_c$, such that, $E_c(w) \subseteq p$

d. *via* (483): $E_c$ is identified with $Epist_{speaker(c)}$ ⇒ $Epist_{speaker(c)}(w) \subseteq p$

Similarly, as shown in (485), when a speaker utters a question, she prompts the hearer to provide the true answer, (485b), and triggers a presupposition that the hearer knows the true answer, (485d).

(485) a. [$_{CP}$ Q [$_{C'}$ regnet$_{[iMood:ASSERT]}$ [$_{TP}$ es [$_{VP}$ $t_{regnet}$]]]?
rains
'Is it raining?'

b. *truth-conditional meaning:* λw.rain(w) = rain(w*)

c. $iMood_{ASSERT}$ ⇒ There is a contextually salient epistemic context $E_c$, such that, $E_c(w) \subseteq p$

d. *via* (483): $E_c$ is identified with $Dox_{hearer(c)}$ ⇒ $Dox_{hearer(c)}(w) \subseteq p$

For declaratives, the presupposition in (484d) can be motivated as it is plausible to assume that belief in a proposition is a pre-condition for asserting it. For V-to-C questions, Truckenbrodt (2006a) presents an empirical argument that a presupposition like (485d) is triggered. Truckenbrodt (2006a) observes that unembedded *ob*-questions do not expect knowledge on part of the hearer, (486), whereas V1-questions do, (487)[99]. This follows if V-to-C movement in questions triggers the presupposition that the hearer knows the true answer.

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[99] While rhetorical questions, pedagogical questions, monological questions and exam questions may, strictly speaking, diverge from this requirement, Truckenbrodt points out that they can still be considered to involve some expectation for an addressee (real or implicit) to make the right answer common ground. What is crucial here is that prototypical questions do encode the presupposition that the hearer is capable of providing an answer.

(486) Stefan: Ich hab seit Jahren nichts mehr von Peter gehört.
'I haven't heard from Peter in years.'

Heiner: Ich auch nicht.
'Me neither.'

Stefan: **Ob** er immer noch kubanische Zigarren **mag**?
whether he always still Cuban cigars likes
'[I wonder] if he still likes Cuban cigars?'

(Truckenbrodt 2006a:274)

(487) Stefan: Ich hab seit Jahren nichts mehr von Peter gehört.
'I haven't heard from Peter in years.'

Heiner: Ich auch nicht.
'Me neither.'

Stefan: # **Mag** er immer noch kubanische Zigarren $\mathbf{t_{mag}}$?
likes he always still Cuban cigars
'Does he still like Cuban cigars?'

(Truckenbrodt 2006a:274)

Moving on to embedded mood, one of the core contrasts is given in (488) versus (489). Truckenbrodt (2006ab) takes *Epist* / [±WH] (my $\text{iMood}_{\text{ASSERT}}$) to be responsible for the possibility of embedded V2 in (488) and the impossibility thereof in (489)[100]. The idea is that embedded epistemic features (or mood features from my perspective) cannot project to the speaker – they have to be evaluated with respect to the matrix subject (possibly by context shifting or binding of an attitude holder variable; Truckenbrodt views the embedded clause as a derived context in the sense of Stalnaker 1988). As a consequence, embedded [$\text{iMood}_{\text{ASSERT}}$] in (488a)+(489a) requires that the matrix subject (*Hans*) believes / knows / assumes / ... that Peter comes to late. As this is the case in (488a), $\text{iMood}_{\text{ASSERT}}$ is licensed, whereas in (489a), $\text{iMood}_{\text{ASSERT}}$ is not licensed. As a consequence, it is plausible that (488b)+(489b) contains $\text{iMood}_{\text{DEF}}$ which is vacuous and thus always possible in embedded clauses.

[100] The idea that Truckenbrodt (2006ab) is based on is the idea that embedded V2 is connected to proto-assertive force, e.g. Gärtner (2002).

(488) a. Hans **glaubt**, [$_{CP}$ Peter [$_{C'}$ **kommt** [$_{TP}$ $t_{Peter}$ zu spät $\mathbf{t_{kommt}}$]]].
Hans believes Peter comes too late
'Hans believes that Peter will come too late.'

b. Hans **glaubt**, [$_{CP}$ **dass** [$_{TP}$ Peter zu spät **kommt**]].
Hans believes that Peter too late comes
'Hans believes that Peter will come too late.'

(489) a.* Hans **bezweifelt**, [$_{CP}$ Peter [$_{C'}$ **kommt** [$_{TP}$ $t_{Peter}$ zu spät $\mathbf{t_{kommt}}$]]].
Hans doubts Peter comes too late
'Hans doubts that Peter will come too late.'

b. Hans **bezweifelt**, [$_{CP}$ **dass** [$_{TP}$ Peter zu spät **kommt**]].
Hans doubts that Peter too late comes
'Hans doubts that Peter will come too late.'

While in complement clauses the choice between $iMood_{ASSERT}$ and $iMood_{DEF}$ seems largely optional, we observe that assertional matrix clauses require $iMood_{ASSERT}$, which in turn seems to require (V-to-)T-to-C movement (i.e. both C and Mood must have the EPP property). This may be important due to a maxim such as Heim's (1991) *Maximize Presupposition* – in order to assert something the speaker has to believe it to be true, which may have to be marked by means of $iMood_{ASSERT}$.

(490) a. Peter **geht** nach Hause.
Peter goes to home
'Peter is going home.'

b.#Dass Peter nach Hause **geht**.
that Peter to home goes
*intended:* 'Peter is going home.'

Similarly, an information question always requires the speaker to use $iMood_{ASSERT}$ as well, as shown in (491). We can understand this on analogy. If a speaker asks a direct question, she typically has reasons to believe that the hearer knows the answer, which must be marked accordingly.

(491) a. **Gehst** du nach Hause?
go you to home
'Are you going home?'

b.# **Ob** du nach Hause **gehst**?
whether you to home go
*intended:* 'Are you going home?'

The fact that embedded mood has to be interpreted with respect to the matrix subject and does not project to the utterance context is supported by observations on embedded counterfactual mood and embedded factive mood. It is plausible that (492b) contains an embedded $iMood_{CF}$, which has an overt reflex in the presence of subjunctive m-mood (*wäre* 'were') and in the possibility of embedded verb second[101]. Yet, it is not the case that the speaker believes in the falsity of *Maria came*. (See also Abels 2010 for the idea that the factivity presupposition of embedded degree exclamatives does not project – with the caveat that these clauses may not be embedded exclamatives after all, cf. chapter 4.)

(492)a. Hans glaubt, fälschlicherweise, dass Maria nicht gekommen ist.
Hans believes falsely that Maria not arrived is
'Hans mistakenly believes that Maria hasn't arrived.'

b. Er wünscht, sie **wäre** gekommen.
he wishes she were come
'He wishes that she had come.'

Simply by assuming $iMood_{ASSERT}$, which can occur in embedded clauses and must then be satisfied with respect to the derived context, we can derive the contrast between the examples in (493), which all activate epistemic states that have the matrix subject as attitude holder, and (494), where this is not the case.

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[101] This observation may necessitate a modification of $iMood_{CF}$ as follows.

i. $||Mood_{CF}||^c = \lambda p \,.\, \lambda w : p \cap E_c(w) = \varnothing \,.\, p(w)$
"Somebody believes / assumes / dreams ... p to be false."

(493) a. Maria glaubt, Peter **geht** nach Hause.
Maria believes Peter goes to home
'Maria believes Peter is going home.'

(Truckenbrodt 2006a:278)

b. Maria sagt, Peter **geht** nach Hause.
Maria says Peter goes to home
'Maria says Peter is going home.'

(Truckenbrodt 2006a:287)

c. Maria träumt, sie **kauft** sich ein neues Auto.
Maria dreams she buys self a new car
'Maria dreams she is buying herself a new car.'

(Truckenbrodt 2006a:290)

(494) a.* Hans bezweifelt, Peter **geht** nach Hause.
Hans doubts Peter goes to home
'Hans doubts Peter is going home.'

(Truckenbrodt 2006a:297)

b.* Es ist (un)wahrscheinlich, Peter **geht** nach Hause.
it is (un)likely Peter goes to home
'It is (un)likely Peter is going home.'

(Truckenbrodt 2006a:288)

c.* Es ist (un)möglich, Peter **geht** nach Hause.
it is (im)possible Peter goes to home
'It is (im)possible Peter is going home.'

(Truckenbrodt 2006a:288)

Portner (2006) observes that there is a correlation between the possibility / impossibility of embedded German V2 and selection of indicative / subjunctive in embedded clauses in Romance and Greek (Portner 1997, Quer 1998, Giannakidou 1999, Villalta 2000)[102]. My analysis follows Portner (2006) in assuming that this correlation is non-coincidental.

In the same way in which Portner (1997) assumes that mood selection reflects the modal context with respect to which an embedded clause is interpreted (e.g. *Maria's*

[102] See also Farkas (1985, 1992), Portner (1992, 1997), Giannakidou (1997), Giorgi & Pianesi (1997), Quer (1998), Giannakidou (1999) and Villalta (2000).

*dreams*, *Maria's beliefs*, etc.), it can be assumed that the types of semantic mood features that I assume need to be licensed with respect to such modal contexts. Concluding this section, it is worth briefly discussing parallels that we expect to see in the behavior of embedded V2 and in m-mood marking on embedded predicates. One thing that has been observed for embedded m-mood is that it is not strictly sensitive to the meaning of the matrix predicate, but rather to the compositional meaning of the matrix clause. Therefore, negation affects mood marking in embedded clauses. Quer (2001) notes that (495a) and (495b) differ in that *creu* 'believes' in (495a) triggers embedded indicative, whereas *no creu* 'doesn't believe' in (495b) triggers embedded subjunctive (provided that the embedded mood is interpreted with respect to the epistemic models $M_E$(Anna) / $M_E$(jury), which have the matrix subject as attitude holder).

(495) a. L'Anna creu [que els pingüins volen]$_{ME(Anna)}$
the-Anna believe.3SG that the penguins fly.**IND**.3PL
'Anna believes that penguins fly.'
(Quer 2001:85)

b. El jurat **no** creu [que sigui innocent]$_{ME(jury)}$
the jury not believe.3SG that be.**SUB**.3SG innocent
'The jury doesn't believe that s/he's innocent.'
(Quer 2001:91)

Embedded indicative under negated *creu* 'believes' is only possible if the embedded mood is interpreted with respect to the speaker's beliefs, i.e. the epistemic model $M_E$(speaker), (496).

(496) El jurat **no** creu [que és innocent]$_{ME(speaker)}$
the jury not believe.3SG that be.**IND**.3SG innocent
'The jury doesn't believe that s/he's innocent.'
(Quer 2001:91)

Quer (1998, 2001) argues that (496) presupposes the truth of the complement proposition, whereas (495a) conveys it in an assertive way. In my system, this distinction can be

captured if we posit lexically speaker-oriented $iMood_{FACT}$ in (496), but context-sensitive $iMood_{ASSERT}$ in (495a)[103].

(497)a. $||iMood_{FACT}||^c = \lambda p . \lambda w : Dox_{speaker}(w) \subseteq p . p(w)$ FACTIVITY

"The speaker presupposes *p* to be true."

b. $||iMood_{ASSERT}||^c = \lambda p . \lambda w : E_c(w) \subseteq p . p(w)$ PROTO-ASSERTIVITY

"It is presupposed that there is a salient epistemic context $E_c$ (i.e. somebody's beliefs, assumptions, dreams, ...), which embeds *p*."

Given that $iMood_{ASSERT}$ must be locally licensed, it is possible in (495a), where the relevant epistemic context is entailed by the matrix clause, but not in (495b), where the epistemic context in the matrix clause does not entail the truth of the complement proposition. In contrast, $iMood_{FACT}$ projects, which is why it is possible in (496).

The same sensitivity of $iMood_{ASSERT}$ to its local context is observed in Truckenbrodt (2006a) (who calls it *Epist*). The examples in (498) and (499) (based on Truckenbrodt 2006a:295-297) show that *glaubt* 'believes' is compatible with embedded *dass* 'that' or V2, whereas *glaubt nicht* 'doesn't believe' is restricted to *dass* 'that' and disallows V2.

(498)a. Hans glaubt, **dass** Peter geht nach Hause **geht**.
Hans believes that Peter goes to home goes
'Hans believes that Peter goes home.'

b. Hans glaubt nicht, **dass** Peter geht nach Hause **geht**.
Hans believes not that Peter goes to home goes
'Hans believes that Peter goes home.'

(499)a. Hans glaubt, Peter **geht** nach Hause.
Hans believes Peter goes to home
'Hans believes that Peter goes home.'

---

[103] This is an over-simplification; Quer (1998) shows that the factive presupposition associated with the indicative in (496) does not project to the actual speaker in the case of *multiple embedding* – in such cases, it projects to the next higher subject. See also Quer (2001:92,fn.11) for the observation that sometimes embedded indicative is possible in a first person statement of 'I don't believe that p'; in such cases, the truth of the complement must be presupposed by some other agent in the discourse.

b.* Hans glaubt nicht, Peter **geht** nach Hause.
Hans believes not Peter goes to home
'Hans believes that Peter goes home.'

This follows if the embedded clause in (498) contains $\text{iMood}_{\text{DEF}}$ marking and the embedded clause in (499) contains $\text{iMood}_{\text{ASSERT}}$ marking, which must be satisfied within the local context (Hans's epistemic model $M_E(Hans)$). In (500b), Hans's beliefs do not embed the proposition that *Peter is going home*, which is why $\text{iMood}_{\text{ASSERT}}$ (the trigger for embedded V2) is not licensed in its local context. In (500a), such licensing is given.

(500) a. Hans glaubt, [Peter **geht** nach Hause]$_{ME(\text{Hans})}$
Hans believes Peter goes to home
'Hans believes that Peter goes home.'

b.* Hans glaubt **nicht**, [Peter **geht** nach Hause]$_{ME(\text{Hans})}$
Hans believes not Peter goes to home
'Hans believes that Peter goes home.'

The current proposal thus derives the similarities between complementizer selection / verb movement on the one hand and mood selection on the other hand. Both are ultimately due to semantic mood features – presupposition triggers that sometimes must be satisfied in a local context and sometimes project. I will now conclude this chapter with a brief discussion of the difference between verb first and verb second in German.

### 5.3.2 V1 and V2

This section briefly addresses the following two issues. On the one hand it appears that German exclamations with (V-to-)T-to-C movement are typically verb-initial, (501), while assertional declaratives have verb-second order, (502).

(501) a. **Hätte** es doch nur tatsächlich geregnet! *optative*
had it doch only indeed rained
'If only it had rained indeed!'

b. **Hat** es jetzt doch tatsächlich geregnet! *polar exclamative*
has it now doch indeed rained
'[I'm surprised] that it rained after all!'

(502) a. Es **hat** geregnet. / * **Hat** es geregnet. *indicative declarative*
it has rained has it rained
'It rained.' 'It rained.'

b. Es **hätte** geregnet. / # **Hätte** es geregnet. *subjunctive declarative*
it had rained has it rained
'It would have rained.' 'It would have rained.'

On the other hand, the mood-based analysis that I proposed for complementizer selection / T-to-C movement does not derive the obligatory presence or absence of XP-to-SpecCP movement, which typically gives rise to verb second order, yet cannot occur in the presence of an 'complementizer' such as *wenn* 'if' or *dass* 'that'. As shown in (503) and (504), verb fronting is quite generally accompanied by XP-to-SpecCP movement (here: *weather es 'it'*), even in complement clauses (though not in conditional antecedents).

(503) a.* Hans glaubt, [$_{CP}$ **hat** [$_{TP}$ es geregnet $t_{hat}$]].
Hans believes has it rained
'Hans believes that it rained.'

b. Hans glaubt, [$_{CP}$ es [$_{C'}$ **hat** [$_{TP}$ $t_{es}$ geregnet $t_{hat}$]].
Hans believes it has rained
'Hans believes that it rained.'

(504) a.* Hans wünscht, [$_{CP}$ **hätte** [$_{TP}$ es geregnet $t_{hätte}$]].
Hans wishes had it rained
'Hans wishes it had rained.'

b. Hans wünscht, [$_{CP}$ es [$_{C'}$ **hätte** [$_{TP}$ $t_{es}$ geregnet $t_{hätte}$]].
Hans wishes it had rained
'Hans wishes it had rained.'

By contrast, *dass*-clauses, as in (505), and *wenn*-clauses, as in (506), disallow XP-to-SpecCP movement.

(505) a. Hans glaubt, [$_{CP}$ **dass** [$_{TP}$ es geregnet **hat**]].
Hans believes that it rained has
'Hans believes that it rained.'

b.* Hans glaubt, [$_{CP}$ es [$_{C'}$ **dass** [$_{TP}$ $t_{es}$ geregnet **hat**]]].
Hans believes it that rained has
'Hans believes that it rained.'

(506) a. Es wäre schön, [$_{CP}$ **wenn** [$_{TP}$ es geregnet **hätte**]].
it were nice if it rained had
'It would be nice if it had rained.'

b.* Es wäre schön, [$_{CP}$ es [$_{C'}$ **wenn** [$_{TP}$ $t_{es}$ geregnet **hätte**]]].
it were nice it if rained had
'It would be nice if it had rained.'

It is worth pausing for a moment here and considering an insight from the verb second literature, as summarized by Holmberg (2010): Verb second consists of two processes, a process of (V-to-)T-to-C movement and a process of filling the specifier of CP, either by virtue of XP-to-SpecCP movement or via base generation of an adverb or expletive element. While T-to-C movement and filling of SpecCP tend to co-occur, as in embedded V2 clauses and in matrix declaratives, there is no reason to assume any deeper functional connection between the two phenomena. In fact, there is much evidence that German XP-to-SpecCP movement is far from a homogeneous, uniform process (see Frey 2010 for a recent discussion). By and large, there seems to be a requirement for SpecCP to be filled in clauses that have a finite verb in C, but there is much variation in what can fill SpecCP. So, how can we account for this effect, and how can we derive the V1-V2 distinction?

Reconsider the system that I proposed above in order to derive the distribution of *dass* 'that', *wenn* 'if' and V1 in German. As shown in (507a), *dass* 'that' emerges whenever C lacks the EPP property (in which case Mood usually has the EPP property, plausibly in order to avoid auxiliary proliferation). Contrastively, as given in (507b), *wenn* 'if' is the consequence of moving Mood to C on its own (i.e. C has the EPP property, but Mood does not). Finally, as given in (507c), T-to-C movement emerges whenever both C and Mood have the EPP property. It is (507c) where we typically find the requirement to fill the specifier of CP, whereas (507a+b) disallow this.

(507) a. $C_{[uMood, -EPP]} \ldots Mood_{[iMood, uT, +EPP]} \ldots T_{[iT]}$
⇒ $C_{[\sout{uMood}]} \ldots T_{[iT]} + Mood_{[iMood, \sout{uT}]} \ldots \langle T_{[iT]} \rangle$
*spell-out:* $C_{[\sout{uMood}]}$ ⇔ *dass* 'that'

b. $C_{[uMood, +EPP]} \ldots Mood_{[iMood, uT, -EPP]} \ldots T_{[iT]}$
⇒ $Mood_{[iMood, \sout{uT}]} + C_{[\sout{uMood}]} \ldots \langle Mood_{[iMood, uT]} \rangle \ldots T_{[iT]}$
*spell-out:* $Mood_{[iMood, \sout{uT}]} + C_{[\sout{uMood}]}$ ⇔ *wenn* 'if'

c. $C_{[uMood, +EPP]} \ldots Mood_{[iMood, uT, +EPP]} \ldots T_{[iT]}$
⇒ $C_{[uMood, +EPP]} \ldots T_{[iT]} + Mood_{[iMood, \sout{uT}]} \ldots \langle T_{[iT]} \rangle$
⇒ $[T_{[iT]} + Mood_{[iMood, \sout{uT}]}] + C_{[\sout{uMood}]} \ldots \langle T_{[iT]} + Mood_{[iMood, \sout{uT}]} \rangle \ldots \langle T_{[iT]} \rangle$
*spell-out:* $[T_{[iT]} + Mood_{[iMood, \sout{uT}]}] + C_{[\sout{uMood}]}$ ⇔ V1 / V2

In light of the system proposed here, the most plausible view is one where it is precisely the fact that both C and Mood have the EPP property that gives rise to a requirement for SpecCP to be filled. As it stands, it is unclear how this comes about, but whatever eventually accounts for the EPP property may give us a means to derive said requirement from accumulating two EPP-bearing heads by means of head movement.

So, how do we account for the V1 versus V2 distinction? I propose for German exclamations and conditional antecedents that V1 is a consequence from T-to-C movement in a clause where the SpecCP position is occupied by a null operator, as given in (508). This null operator may correspond to the *EX* operator in the case of optatives and to the null conditional modal in the case of conditional clauses[104]. Such a view allows us to account for V1 in conditionals and exclamations, as in (508).

(508) a. [$_{SpecCP}$ $EX_S$ [$_{C'}$ **Wärst** [$_{TP}$ du doch zuhause]]]!
were you doch at.home
'Were you only at home!'

b. [$_{SpecCP}$ ∀ [$_{C'}$ **Wärst** [$_{TP}$ du zuhause]]], würde ich vorbeikommen.
were you at.home would I drop.by
'If you were at home, I'd drop by.'

---

[104] Example (508b) assumes that *würde* 'would' is not the conditional modal itself, but rather an analytic mood marker, given that modern day German uses analytic *würde* + *V* forms instead of synthetic forms to express the subjunctive, cf. Scholz (1991).

Assuming a uniform structure for conditional antecedents and exclamations, we can posit such an operator also in the cases of *wenn* 'if', in (509). From a unificatory perspective, it seems further motivated to extend the proposal to *dass*-exclamations, as given in (510). For these two construction types, such a proposal accounts for the fact that SpecCP in *dass*-clauses and *wenn*-clauses not only need not be filled, but actually must not be filled: They already contain a null operator. (Notably, this idea can however not be extended to regular complement *dass*-clauses.)

(509) a. [$_{SpecCP}$ $EX_S$ [$_{C'}$ **Wenn** [$_{TP}$ du doch zuhause **wärst**]]]!
if you doch at.home were
'If only you were at home!'

b. [$_{SpecCP}$ ∀ [$_{C'}$ **Wenn** [$_{TP}$ du zuhause wärst]]], würde ich vorbeikommen.
if you at.home were would I drop.by
'If you were at home, I'd drop by.'

(510) [$_{SpecCP}$ $EX_S$ [$_{C'}$ **Dass** [$_{TP}$ du doch zuhause **wärst**]]]!
that you doch at.home were
'If only you were at home!'

The view that optatives and conditional antecedents contain a null operator in SpecCP can be motivated as follows. First, it is a common assumption that German is a strict verb second language, and V1 structures contain a null operator (or an elided element) in SpecCP. For yes/no-questions it is a plausible assumption that this null operator is a question operator *Q*. The view that questions contain a null operator as opposed to an elided lexical item is supported by the fact that nothing can, in fact, be overtly realized in the SpecCP of yes/no-questions, as shown in (511).

(511) a. [$_{CP}$ Q [$_{C'}$ Bist [$_{TP}$ du denn zuhause $t_{bist}$]]]?
are you denn at.home
'Are you home?'

b. (*Es / *Jetzt / *Dann) bist du denn zuhause $t_{bist}$?
it now then are you denn at.home
'(*It / *Now / *Then) are you home?'

c.* Du bist $t_{du}$ denn zuhause $t_{bist}$?
you are denn at.home
'You are home?'

Exactly the same argument can be made in favor of a null operator in the case of conditional antecedents, (512), and exclamations, (513): No overt element can possibly appear in the pre-V1 position (we can test this for optatives, but not so easily for polar exclamatives, due to their similarity to declaratives, cf. chapter 2).

(512) a. Wärst du zuhause, würde ich vorbeikommen.
were you at.home would I drop.by
'Were you at home, I'd drop by'

b. (* Es / *Jetzt / * Dann) wärst du zuhause, würde ich vorbeikommen.
it now then were you at.home would I drop.by
'(*It / *Now / *Then) were you at home, I'd drop by'

c.* Du wärst $t_{du}$ zuhause, würde ich vorbeikommen.
you were at.home would I drop.by
'You were home, I'd drop by'

(513) a. Wärst du doch zuhause!
were you doch at.home
'Were you only at home!'

b. (* Es / # Jetzt / # Dann) wärst du doch zuhause!
it now then were you doch at.home
'(*It / *Now / *Then) were you only at home!'

c.# Du wärst $t_{du}$ doch zuhause!
you were doch at.home
'You were only at home!' (*only reading:* 'Of course, you'd be home!')

This leaves us, however, without an explanation for the fact that complement *dass*-clauses do not allow for any elements in their SpecCP position either, although they do not seem to contain a null operator of any sort[105].

[105] An alternative hypothesis would be to assume that *dass*-clauses, *wenn*-clauses and V1-clauses always contain a MAX operator in SpecCP, which yields the most salient / closest plurality of possible worlds (cf. Schlenker 2004, Bhatt & Pancheva 2002, 2006, Schein 2003) in which the modified proposition is true. I leave an exploration of this option open for future research.

## 5.4 Summary

In this chapter, I have presented a system for semantic mood, with a focus on exclamations. The central goal was to try to understand how exclamations achieve the factivity/counterfactuality presuppositions that they do, and how complementizer selection and T-to-C movement in exclamations are constrained. I have argued that factivity/counterfactuality presuppositions in exclamations are due to semantic mood features, which co-determine the material that surfaces in C and the morphological mood on the finite verb or auxiliary. I presented an implementation in terms of agreement between C and Mood, which can give rise to movement from Mood to C, or even movement from a complex T+Mood head to C. I subsequently discussed the integration of my proposal into the larger context of literature on mood selection and verb movement.

# 6. Particles and Forces: Modulating *EX*

This section aims at resolving one of the most puzzling properties of optatives and other exclamations: The presence of different particles. I first present an overview of my proposal, starting with the issues that are at stake, in section 6.1.1, and my analysis in section 6.1.2, followed by a brief discussion of possible predictions in section 6.1.3. I then focus on three case studies: The particles 'only' (6.2), 'at least' (6.3) and *doch* (6.4), which are the prototypical markers of optativity in German and many other languages.

## 6.1 On the Role of Particles in Exclamations

### 6.1.1 The Core Puzzles

As a brief reminder, *optatives* are utterances that express a *wish*, *hope* or *desire* without containing a lexical item that means 'wish', 'hope' or 'desire' (cf. Scholz 1991, Rosengren 1993, Rifkin 2000, Kyriakaki 2007, 2008, 2009, Asarina & Shklovsky 2008, Biezma 2011ab). In this dissertation, I have so far argued for an analysis that derives desirability in optatives from a generalized exclamation operator *EX*, which I formalized as in (514), repeated from (138).

(514) For any scale $S$ and proposition $p$, interpreted in relation to a context $c$ and assignment function $g$,

an utterance EX(S)(p) is felicitous iff $\forall q[\text{THRESHOLD}(c) >_S q \rightarrow p >_S q]$

"EX expresses an emotion that captures the fact that $p$ is higher on a (speaker-related) scale $S$ than all contextually relevant alternatives $q$ below a contextual threshold."

*where* THRESHOLD(c) is a function from a context into a set of worlds / a proposition that counts as high with respect to a relevant scale $S$.

One of the puzzling properties of optatives is the proliferation of particles in such utterances. In German, the prototypical optative particles are *nur* 'only', *wenigstens* 'at least' and *doch* 'but, though', cf. Scholz (1991). I focus on these three elements, both in German and from a cross-linguistic perspective. However, beyond these three elements,

the goal of this chapter is to lay out a generalized framework for analyzing 'discourse' particles and their impact on speech act disambiguation. Let me briefly review four observations on discourse particles in optatives and state the puzzle at the end of this section.

The first observation on the three particles under discussion is that they can co-occur quite freely in optatives, as illustrated for a *dass*-optative in (515). All of the examples in (515a-h) are acceptable optatives in German.

(515) a. (Ach,) Dass ich **doch** **nur** **wenigstens** einen von ihnen getroffen hätte!
b. (Ach,) Dass ich einen von ihnen getroffen hätte!
c. (Ach,) Dass ich **doch** einen von ihnen getroffen hätte!
d. (Ach,) Dass ich **nur** einen von ihnen getroffen hätte!
e. (Ach,) Dass ich **wenigstens** einen von ihnen getroffen hätte!
f. (Ach,) Dass ich **doch** **wenigstens** einen von ihnen getroffen hätte!
g. (Ach,) Dass ich **nur** **wenigstens** einen von ihnen getroffen hätte!
h. (Ach,) Dass ich **doch** **wenigstens** einen von ihnen getroffen hätte!
oh that I DOCH only at.least one of them met had
'Oh, that I had met one of them!' / 'If only I had met one of them!'

The second observation is that these particles do not obviously seem to modify the proposition that is wished for in an optative; all of the examples in (516a-c) amount to an expression of the wish in (516d).

(516) *Context: I just had a very embarrassing crash with my snowboard.*

| | | | | | | |
|---|---|---|---|---|---|---|
| a. | Wenn | mich | **doch** | niemand | gesehen | hätte! |
| | if | me | doch | nobody | seen | had |
| b. | Wenn | mich | **nur** | niemand | gesehen | hätte! |
| | if | me | only | nobody | seen | had |
| c. | Wenn | mich | **wenigstens** | niemand | gesehen | hätte! |
| | if | me | at.least | nobody | seen | had |

d. *wish paraphrase:* I wish nobody had seen me.

As a third observation, we find that, while no single particle is obligatory in an optative clause, particles are nevertheless prototypical and often quasi-obligatory. One half of this observation consists of the fact that we can find exclamations without any particles that

nevertheless express an optative-like positive evaluation. A selection is given in (517). (Native speakers differ in the extent to which they accept these particle-less exclamations.)

(517) a. Dass ich noch einmal Venedig sehen könnte!
that I still once Venice see could
'Oh that I could see Venice once more!'

(Truckenbrodt 2006a)

b. Wenn ich deine Statur hätte!
if I your build had
'[Oh!] If [only] I had your build!'

(adapted from Evans 2007, most natural stress marking is indicated by me)

c. Rico schaute die Blumen an und dachte:
'Rico looked at the flowers and thought:'

" Wenn Stineli diese sehen könnte!"
if Stineli these see could
'If Stineli could see these!'

und stand lange unbeweglich am Zaun.
'and stood at the fence for a long time without moving.'

(Johanna Spyri (1878): *Heimatlos*. Discussed in Grosz 2011)

d. WÄRE ich zuhause geblieben!
WERE I at.home stayed
'HAD I stayed home!'

(Rosengren 1993:36)

The other half of this observation consists of the following fact. While borderline examples of *wish*-conveying exclamations exist, as documented in (517), it seems to be a default that optatives contain either one of the prototypical particles (*nur* 'only', *wenigstens* 'at least' and *doch* in German) or a suitable interjection (*ach* 'oh' or *oh* 'oh' in German), cf. Thurmair (1989), Scholz (1991), Rosengren (1993), Coniglio (2009). This fact is illustrated in (518). The illformedness of utterances like (518e) has lead many scholars to conclude that particles are, in fact, obligatory in optatives (e.g. Pittner 2007). I side with Rosengren (1993) in assuming that particles are *prototypical* rather than

*obligatory* for optatives (i.e. optatives do not require particles, but optatives are most natural if they do contain particles).

(518) a. Wäre er **nur** rechtzeitig gekommen!
were he only in.time come

b. Wäre er **doch** rechtzeitig gekommen!
were he doch in.time come

c. Wäre er **wenigstens** rechtzeitig gekommen!
were he at.least in.time come

d. **Ach,** wäre er rechtzeitig gekommen!
oh were he in.time come

e. ?# Wäre er rechtzeitig gekommen!
were he in.time come

'If only he had come in time!'

Let me briefly elaborate on the present empirical discussion, by showing that German is not an isolated case. A language that behaves rather similar to German is Italian. Italian allows for a variety of particle-less optatives (typically without *se* 'if').

(519) a. Il Signore ci protegga. (di Lampedusa, Il Gattopardo)
the Lord us protect-subj-3sg
'May the Lord protect us.'

(Portner 2006, quoting Portner 1997 who takes the data from Moretti & Orvieto 1978)

b. Dai nemici mi guardo io. [Dagli amici mi guardi Iddio!]
from.the enemies me protect.1sg.ind I [from.the friends me protect.3sg.subj God]
'I protect myself from my enemies. [**(May)** God protect me from my friends!]'

(Italian proverb)

c. Potessi venire anch'io
can.1sg.pres.subj come also I
'If only I could come too!'

(quoted from Palmer 2001:132, who attributes it to Lepschy & Lepschy 1977)

d. Ti prenda un colpo!
you take.SUBJ a stroke
'May you have a stroke!'
(Giorgi 2009:1854)

Similar to German, *if*-optatives typically contain a particle or an interjection, and as in German, these elements are drawn from a set containing 'only', 'at least' and 'oh'.

(520)a. Se **solo/solamente** John avesse ascoltato Maria!
if only John had listened.to(past.subj) Mary
'If **only** John had listened to Mary!'

b. Se John avesse **almeno** ascoltato Maria!
if John had at.least listened.to(past.subj) Mary
'If John had **at least** listened to Mary!'

c. **Oh,** se John avesse ascoltato Maria!
oh if John had listened.to(past.subj) Mary
'**Oh,** if John had listened to Mary!'

With complementizerless optatives, we also find a variant that employs the optative-specific particle *magari.*

(521) **Magari** Maria avesse ascoltato Gianni!
MAGARI Maria had listened.to Gianni
'I wish Maria had listened to Gianni!'

These observations corroborate the assumption that particles cross-linguistically have a role of prototypical optative markers (as opposed to a role of obligatory optative licensors).

This brings us to the fourth and final observation that we should concern ourselves with. Particles disambiguate between different types of exclamations. Example (522a) is ambiguous between an optative reading, given in (522b), and a polar exclamative reading, paraphrased in (522c).

(522) a. **Hätte** die dem **doch** tatSÄCHlich das Buch gegeben!
had$_{subj}$ she him doch indeed the book given
*lit.* Had$_{subjunctive}$ she indeed given him the book!

b. 'If only she had given him the book!' *opt.*

c. '[It's shocking that] she would have indeed given him the book!' *p.exc.*

(adapted from Scholz 1991:132-133, attributing the example to Norbert Fries)

As soon as we add the particle *nur* 'only', the polar exclamative reading disappears, as shown in (523c). But why?

(523) a. **Hätte** die dem (doch) **nur** tatsächlich das Buch gegeben!
had$_{subj}$ she him doch only indeed the book given
*lit.* Had$_{subjunctive}$ she only indeed given him the book!

b. 'If only she had given him the book!' *opt.*

c.* '[It's shocking that] she would have only given him the book!' *p.exc.*

The goal of this chapter is to find answers to the following questions. First, and most crucially, what type of meaning to these particles contribute to optatives? A solution to this question should account for the fact that they do not seem to modify the desired proposition and for the fact that they are freely compatible. Second, why do they disambiguate between different types of exclamations? And third, why are they prototypical for optatives and how do they "license" optatives?

### 6.1.2 The Core Proposal

I argue that particles in optatives are truth-conditionally vacuous elements that act as pure presupposition triggers, modulating the expressive meaning that is conveyed by means of *EX*. Their truth conditions are thus identical (namely vacuous), given in (524). Each particle maps a proposition to itself, provided that the particle's non-truth-conditional contribution is licensed in the utterance context. I conjecture that this is a hallmark of the meaning of discourse particles (see also Kratzer 1999, Kratzer & Matthewson 2009), and

that *nur* 'only' and *wenigstens* 'at least' in this reading should be grouped together with other, seemingly more elusive discourse particles (cf. Malte Zimmermann forthcoming).

(524) *truth-conditional semantics of 'at least', 'only' and 'doch' in optatives*
If defined, ||*wenigstens* 'at least' / *nur* 'only' / *doch*|| = λp.p

I now proceed to discuss the non-truth-conditional content of each of the three particles that I focus on.

First, I propose that the function of *only* in optatives is to mark that the desired proposition is comparatively low on the speaker's preference scale, as given in (525). Essentially, adding *nur* 'only' into an optative indicates that the modified proposition is 'not much to ask'. In an expression of desire, this is a felicitous move, as it may convey desperation and/or modesty, depending on the context. The details of my analysis are given in section 6.2.

(525) a. Wenn Otto **nur** auf seine Mutter gehört hätte!
if Otto only to his mother listened had
'If only Otto had listened to his mother!'

b. *presuppositions of* ***nur****:* This is not much to ask for (i.e. it's low on some scale).

c. *formalization:*

$||only_{2,C}|| = \lambda S.\lambda p : \underset{p}{\text{MOST}}\ q \in g(C)\ [q >_S p]$ . LOWNESS IDENTITY

"*only*$_2$ is a truth-conditionally vacuous element (different from canonical *only*), which triggers a presupposition that the modified proposition is low on a contextually provided scale."

(based on Guerzoni's 2003 *nur*$_2$, assuming that all cases of *only* are scalar)

Second, I argue that the function of *at least* in optatives is to convey a 'settling for less' attitude. This is appropriate whenever it has already become clear that the speaker actually wishes for something better than the expressed proposition; it conveys that the speaker acknowledges that the better option is unachievable and thus lowers the threshold of what is desirable. The details of my analysis are given in section 6.3.

(526) a. Wenn Otto **wenigstens** auf seine Mutter gehört hätte! *German*
if Otto at.least to his mother listened had
'If Otto had at least listened to his mother!'

b. *presuppositions of **wenigstens***: This is tolerable but there is a better option.

c. *formalization:*

$||\text{wenigstens}_C||^{g,c} = \lambda S.\lambda p$ :

| | |
|---|---|
| S is a bouletic ordering ∧ | BOULETIC |
| $\exists r \in g(C)\ [r >_S p] \wedge \exists q \in g(C)\ [p >_S q]$ . | SECOND CHOICE |
| p | IDENTITY |

"*wenigstens* is a truth-conditionally vacuous element (corresponding to English concessive *at least*), which combines with a bouletic scale and presupposes that there is a contextually salient proposition that is more preferable than the modified proposition, as well as a contextually salient proposition that is less preferable."

(based on Nakanishi & Rullmann's 2009 *concessive at least*)

Finally, the function of *doch* is to emphasize the contrast between what is desired and what is the case. By doing so, *doch* gives rise to a strengthening effect, i.e. the wish seems more emphatic. I discuss the particle *doch* in section 6.4.

(527) a. Wenn Otto **doch** auf seine Mutter gehört hätte!
if Otto DOCH to his mother listened had
'If only Otto had listened to his mother!'

b. *presuppositions of **doch***: This is in sharp contrast (i.e. contradiction) to reality.

c. *formalization:*

$||\text{doch}_C||^{g,c,w} = \lambda p$ :

| | |
|---|---|
| $\exists q \in g(C)\ [p \neq q\ \&\ \neg[p(w) \wedge q(w)]] \wedge$ | CONFLICT |
| $p \cap \text{Dox}_{\text{speaker}}(w) = \varnothing \vee \neg p \cap \text{Dox}_{\text{speaker}}(w) = \varnothing$ . | FAMILIARITY |
| p | IDENTITY |

"*doch* is a truth-conditionally vacuous element, which triggers a presupposition that the truth/falsity of the modified proposition is established and that the modified proposition conflicts with some contextually salient proposition."

(based on Grosz 2010, Kratzer & Matthewson 2009)

As shown in (528), my analysis derives the fact that different particles can combine in an optative without shifting the core expressive meaning in any relevant sense. The particle that has most impact may be *wenigstens* 'at least', as it explicitly makes salient a more preferable alternative. In this sense, particles are *modulators*, i.e. elements that fine-tune the expression of a wish that is conveyed by means of the *EX* operator.

(528) a. Wenn Otto **doch** **nur** **wenigstens** auf seine Mutter gehört hätte!
if Otto DOCH only at.least to his mother listened had
'If only Otto had listened to his mother!'

b. *meaning without particles*: I'd be content if Otto had listened to his mother.

c. *contribution of* ***wenigstens***: I'm settling for a less than optimal option.

d. *contribution of* ***nur***: This is not much to ask for (i.e. it's low on some scale).

e. *contribution of* ***doch***: This is in sharp contrast (i.e. contradiction) to reality.

This analysis also correctly predicts that two quasi-synonymous elements can co-occur under their truth-conditionally vacuous reading, which is illustrated for German *nur* 'only' and its informal variant *bloß* 'only' in (529)[106], and for Croatian (and Serbian) *barem* 'at least' and *makar* 'only' in (530).

(529) a. Wenn **nur** **bloß** alle Menschen so glücklich wären! *German*
if only only all humans so happy were
'If only all humans were so happy!'

b. Wenn **bloß** **nur** alle Menschen so glücklich wären!
if only only all humans so happy were
'If only all humans were so happy!'

(530) a. Kad bi **barem** **makar** danas pala kisa! *Croatian*
when would at.least at.least today fall.part.fem rain
'I wish it would rain at least today.' (*lit.* 'If it would rain at least today!')

b. Kad bi **makar** **barem** danas pala kisa!
when would at.least at.least today fall.part.fem rain
'I wish it would rain at least today.' (*lit.* 'If it would rain at least today!')

---

[106] In optatives, *bloß* 'only' typically has the same distribution as *nur* 'only'. I omitted it from most of the discussion in this dissertation, as its meaning is sufficiently covered by discussing *nur* 'only'.

For the prototypicality of particles in optatives and for their disambiguating effect, I pursue the view laid out in Grosz (2011). As argued above, particles impose different restrictions on the utterance context and on the utterance that they occur in. They do so by virtue of the presuppositions that they trigger. Disambiguation amounts to the elimination of incompatible readings.

To exemplify, we find that *doch* is incompatible with a subjunctive conditional antecedent, cf. (532b)/(533b) versus (531b). Similarly, *nur* 'only' is incompatible with a polar exclamative reading for a V1 clause, cf. (533c) versus (531b)/(532b). (I will discuss these incompatibilities in some detail in section 6.5 and when discussing the isolated particles.) Therefore, adding *doch* and *nur* 'only' to the ambiguous (531a) narrows down the range of possible readings. (Examples based on Scholz 1991:132-133.)

(531) a. **Hätte** die dem tatSÄCHlich das Buch gegeben …
had$_{subj}$ she him indeed the book given
*lit.* Had$_{subjunctive}$ she indeed given him the book …

b. 'If she had given him the book …' *cond.*

c. '[It's shocking that] she would have indeed given him the book …' *p.exc.*

d. 'If only she had given him the book …' *opt.*

(532) a. **Hätte** die dem **doch** tatSÄCHlich das Buch gegeben …
had$_{subj}$ she him doch indeed the book given
*lit.* Had$_{subjunctive}$ she indeed given him the book …

b.* 'If she had given him the book …' *cond.*

c. '[It's shocking that] she would have indeed given him the book …' *p.exc.*

d. 'If only she had given him the book …' *opt.*

(533) a. **Hätte** die dem **doch nur** tatSÄCHlich das Buch gegeben …
had$_{subj}$ she him doch only indeed the book given
*lit.* Had$_{subjunctive}$ she only indeed given him the book …

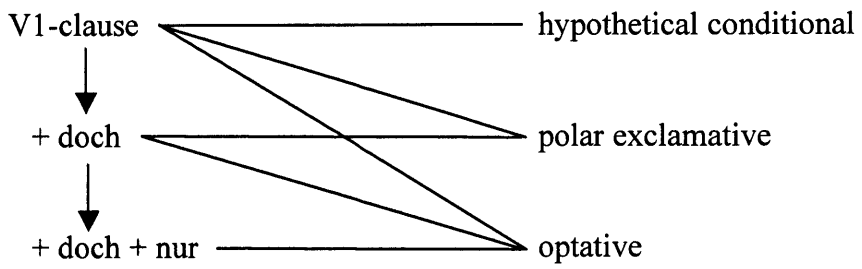
b.* 'If she had given him the book …' *cond.*

c.* '[It's shocking that] she would have indeed given him the book …' *p.exc.*

d. 'If only she had given him the book …' *opt.*

We can now argue that prototypicality / quasi-obligatoriness of particles in optatives (and other exclamations) emerges as a the mirror image of their disambiguation property. The graph in (534) captures the schema that we observe in (531)-(533). We can incrementally eliminate unintended readings of a multiply ambiguous utterance like the V1-clause in (531) by adding different particles.

(534)




Conversely, it can be inferred from general strategies for successful conversation that speakers will use particles whenever they can in order to disambiguate, and hearers will expect this, see section 6.5. As a consequence, a hearer who hears (531) will typically disambiguate towards a hypothetical conditional, and an intended optative reading will become deviant as a result of this faulty disambiguation. This gives rise to the quasi-obligatoriness of discourse particles in exclamations.

### 6.1.3 A remark on the non-equivalence of different particles

Before discussing the individual contributions of the three particles that I am focusing on, it is worth pointing out one prediction that can easily be shown to hold: Isolated particles (i.e. *nur* 'only', *wenigstens* 'at least' and *doch* that do not cluster together) should exhibit distributional differences. Specifically, I have argued that *nur* 'only' conveys that the modified proposition is not much to ask for, *wenigstens* 'at least' conveys that there is a better option and I'm willing to compromise, and *doch* merely marks the sharp contrast between what is desired and what is the case.

We expect these different presuppositions to entail a different distribution of the particles; however, any judgments in this area will be most subtle, as it is easy to

accommodate for one or the other piece of background information. Nevertheless, I believe that it can be shown that the particles do indeed differ in this respect.

First of all, we have already seen that *wenigstens* 'at least' contrasts from *doch* and *nur* 'only' in the sense that *doch*-optatives and *nur*-optatives are licensed in a broader set of contexts than *wenigstens*-optatives. The particle *wenigstens* 'at least' is bad in (535), as it presupposes that chocolate cake is not the best possible scenario – which however it is. The illformedness of *wenigstens* 'at least' in (535) is correctly predicted; it is due to the presupposition of *wenigstens* 'at least' that something else is more desirable.

(535) *Sofia promised to bring something to my picnic. My first choice is chocolate cake; my second choice is apple pie; I absolutely hate vanilla ice cream.*

Jetzt kommt die mit Vanilleeis daher! ...
now comes she with vanilla.ice.cream here
'Now she arrives with Vanilla ice cream!'

Ach, wenn sie **doch** / **?nur** /**#wenigstens** einen Schokokuchen gebracht hätte!
oh if she doch only at.least an chocolate.cake brought had
'If only she had brought an chocolate cake!'

Flipping our perspective, it can also be shown that an optative that explicitly amounts to a *wenigstens*-type compromise is hardly compatible with *doch* or *nur* 'only', (536c). Again, this is expected, as Maximize Presupposition (Heim 1991) may require us to use *wenigstens* 'at least' whenever we can to convey the compromise that we are agreeing to.

(536)a. Jetzt kommt die mit Vanilleeis daher! ...
now comes she with vanilla.ice.cream here
'Now she arrives with Vanilla ice cream!'

b. Ach, wenn sie **doch** / **nur** /**#wenigstens** einen Schokokuchen gebracht hätte!
oh if she doch only #at.least an chocolate.cake brought had
'If only she had brought an chocolate cake!'

c. Oder wenn sie **?#doch** /**?#nur** / **wenigstens** einen Apfelkuchen gebracht hätte!
or if she ?#doch ?#only at.least an apple.cake brought had
'Or at least if only she had brought an apple pie!'

Having shown that *wenigstens* 'at least' does indeed distribute differently from *nur* 'only' and *doch*, the question arises if we find similar contrasts between *doch* and *nur* 'only'. I believe that we do. Consider the naturally occurring example in (537a), which employs a *nur*-optative. I have constructed (537b) by substituting *doch* for *nur* 'only'. While intuitions here are hard to probe, it seems as though (537b) is deviant. This is predicted by my account as follows: *nur*-optatives are 'modest wishes', i.e. they presuppose that whatever is wished for is rather low on the scale of the speaker's preferences; clearly, this presupposition is satisfied if someone who is ill and about to die expresses a wish to hear a church bell. I conjecture that *doch* is here blocked as it does not convey this presupposition.

(537)a. Als dein Oheim Simon einmal vor dem Feinde im Felde lag und krank war, sagte er, da ich ihn besuchte: 'Vater, **wenn ich nur** noch einmal das Oberplaner Glöcklein hören könnte!' aber er konnte es nicht mehr hören und mußte sterben.

'When your uncle Simon once lay in the field across from the enemy and was taken ill, he said, as I visited him: 'Father, **if only I** could hear the Oberplan bell once again!' but he could not hear it for another time and he had to die.'

(A. Stifter: *Bunte Steine*)

b. ?#Als dein Oheim Simon einmal vor dem Feinde im Felde lag und krank war, sagte er, da ich ihn besuchte: 'Vater, **wenn ich doch** noch einmal das Oberplaner Glöcklein hören könnte!' aber er konnte es nicht mehr hören und mußte sterben.

Can we find the inverse of (537), an example where *doch* must be used as *nur* 'only' is not satisfied? I propose that (538) may be a relevant example. (538a) is, once again, a naturally occurring example of a *doch*-optative from the literature. I have constructed (538b) by replacing the *doch*-optative with a *nur*-optative. In the context of this theater play, it appears that Toni is weary of life and the sole thing she desires at the point at which she utters this optative is to die. In such a context, a *lowness* presupposition may be vacuous, as there are no higher preferences any more. I conjecture that for this reason *nur* 'only' is deviant in (538b).

(538)a. WENDT. Toni!!

TONI. Ach, mir ist ... *Faßt sich.* Ja! ... Wir dürfen jetzt nicht mehr – daran denken! ... Ich habe das nicht nur so – hingesagt! ... Das ist nun – vorbei! ...

TONI: 'Oh, I am ... *she composes herself.* Yes! ... we must now no longer – think of it! ... I didn't just – say this! ... This is now – over! ...'

WENDT. Ach, du weißt ja nicht, was du ... Wir wissen ja nicht – jetzt ...

WENDT: 'Oh, but you don't know what you ... we don't yet know – now ...'

TONI *müde, gequält.* Ach, **wenn ich doch** tot wär! ...

TONI *tired, agonized:* 'Oh **if only I** were dead! ...'

(Arno Holz: *Die Familie Selicke*)

b.?#TONI *müde, gequält.* Ach, **wenn ich nur** tot wär! ...

TONI *tired, agonized:* '**Oh if only** I were dead! ...'

The following constructed example also replicates the intuition that *doch* and *nur* 'only' are not always freely exchangeable. In (539), B conveys that having time would be the most minimal thing that B would require in order to follow A's advice; in such a situation, *doch* seems somewhat odd, as it is clear that this is a rather modest wish.

(539) A: Du solltest jeden Tag zum Yoga gehen.
you should every day to.the yoga go
'You should go to yoga classes every day.'

B: Ha! Wenn ich **nur** / # **doch** die Zeit dafür hätte!
ha if I only doch the time for.it had
'Ha! If only I had time for it!'

I conclude that evidence can be construed, which shows that *doch*, *nur* 'only' and *wenigstens* 'at least' are not always freely replaceable. I have shown that there are contexts where *doch*/*nur* 'only' are preferred over *wenigstens* 'at least' and vice versa. I have also shown that there are contexts where *doch* is preferred over *nur* 'only' and vice versa. I documented that such restrictions and asymmetries are as predicted by the analysis I proposed above. Having thus presented and motivated a semantic analysis for the prototypical optative particles, I will now discuss each of these particles individually.

## 6.2 The *Only* Problem

### 6.2.1 *Only* or not *Only*?

This section discusses a compositionality problem first discussed explicitly by Rifkin (2000). I first discuss the empirical scope of my analysis, then introduce the puzzle, and then outline the analysis that I am positing.

#### 6.2.1.1 The Empirical Scope

Starting with the data, Rifkin (2000) observes that the particle *only* is cross-linguistically frequently used in optatives. He documents this for typologically diverse languages such as German, Italian, Russian, Hebrew and Finnish, (540).

(540)a. Wenn Hans (doch) **nur** reich wäre. *German*
if Hans doch only rich be-subj

b. Se **solo/soltanto** Gianni fosse rocco. *Italian*
if only/only Gianni were rich

c. jesli by ja **tol'ko** byl bogatym *Russian*
if subj I only were rich

d. ilu/lu **rak** hayiti ashir *Hebrew*
if only be-past-1sg rich

e. Jos **vain** olisin rikas *Finnish*
if only be-cond-1sg rich

'If only Hans/Gianni/he were rich.'

(Rifkin 2000)

As shown in (541), the particles glossed as 'only' in (540) are the same particles that we typically find in exclusive contexts.

(541)a. Hans hat **nur** einen Freund. *German*
Hans has only one friend

b. Gianni ha **solo/soltanto**/solamente un amico. *Italian*
Gianni has only/only/only one friend

c. u ivana **tol'ko** adin drug *Russian*
to Ivan-Gen only one friend

d. yesh l'David **rak** xaver exad. *Hebrew*
there-exists to-David only friend one

e. Jussi-lla on **vain** yksi ystävä *Finnish*
Jussi-adessive is only one friend

f. John-i puca-i-ki-**man** ha-ess-te-ramyun *Korean*
John-nom rich.person-be-nmlz.only do-past-past-if
'Hans/Gianni/Ivan/David/Jussi only has one friend.'
(Rifkin 2000)

A brief overview of other languages in which *only*-type elements occur in optatives is given in (542).

(542) a. Ef Jón hefði **bara** hlustað á Maríu! *Icelandic*
if John had only listened to Mary

b. Kdy-by **jen** Honza poslechl Marii! *Czech*
when-subj.3 only Honza listened.pst.ptcp Marie.acc

c. Gdyby / Żeby **tylko** Jan (po)słuchał Marii. *Polish*
if if only John listen.(perf.)pret.3sg.m Mary.gen.nom.f

d. Da je **samo** Jovan poslušao Mariju! *Serbian*
that be.3sg only John listened Mary-acc

e. Si **seulement** John avait écouté Mary! *French*
if only John had listened.to Mary

f. Als Jan (nou) **maar** naar Marie had geluisterd! *Dutch*
if Jan PRT only/but to Marie had listened

g. Kun **ɣir** John sme3 l Mary *Moroccan Arabic*
if only John listened to Mary

h. Bár-**csak** János hallgat-ott volna Maria-ra! *Hungarian*
though-only John listen-past.3sg cond Mary-(on)to

i. Oh, **miain/menak** ete Jonə Meriin ləsats liner. *Eastern Armenian*
Oh, only/only if John Mary listened had
'If only John had listened to Mary!'

m. (Ah,) law kent **bass** ghani! *Lebanese Arabic*
oh if was.1s only rich
'If only I were rich!'

n. Ak, hvis **bare** alle mennesker var gode! *Danish*
oh if only all people were good
'Oh, if only all people were good!'

o. Om han **bare** hadde kjørt litt fortere! *Norwegian*
if he only had driven little faster
'If only he had driven a bit faster!'

Focusing on German and English, we immediately notice that the ability to occur in optatives is not limited to a single lexical entry for 'only', but rather seems to be attached to some meaning component of 'only'. What we find is that while English *only* is the most typical element in optatives, (543a), *just* can also occur, (543b). Other elements that have the same exclusive reading cannot occur in optatives, as illustrated for *merely*, (543c).

(543) a. Oh, if he **only / just / #merely** knew how much we miss him!
b. I **only / just / merely** have three of his books.

German shows a similar pattern; *nur* 'only' and *bloß* 'only, just' (which has a more pragmatic / casual flavor) can occur in optatives, cf. Scholz (1991); *lediglich* 'merely' cannot.

(544) a. Ach, wäre ich **bloß / nur / # lediglich** reich!
oh were I only only merely rich
'Oh, if only I were rich!'

b. Ich habe **bloß / nur / lediglich** drei seiner Bücher.
I have only only merely three of.his books
'I only have three of his books.'

In the absence of an understanding of the difference between *only/just* and *merely*, these data make one point: There is something about the meaning of *only* that has an

inclination for occurring in optatives; yet it is not completely unconstrained. Let us now review the problem that *only* poses in optatives.

### 6.2.1.2 A Compositionality Problem

The core problem with respect to *only* in optatives is that we are faced with a compositionality problem. Consider a sketch of a standard lexical entry for *only* in (545) (assuming for simplicity that all entries for *only* are scalar, cf. Jacobs 1983, Bayer 1996, Klinedinst 2004, 2005, Krasikova & Zhechev 2006, Riester 2006, Beaver & Clark 2008). In words, *only* presupposes that the modified proposition *p* (or a higher proposition on a contextually provided scale) is true (the 'prejacent presupposition'), (545a), and it presupposes that *p* is low on the contextually provided scale, (545b). If defined, *only* asserts that no proposition that is higher than *p* is true, (545c). (See section 6.2.3 for more details on this analysis.)

(545) a. $||only_C|| = \lambda S.\lambda p.\lambda w: \quad p(w) \vee \exists q\,[q >_S p \rightarrow q(w) = 1] \wedge$ AT LEAST

"**Presupposition 1:** The modified proposition or a higher scalar alternative is true."

b. $\text{MOST } q \in g(C)\,[q >_S p]\,.$ LOWNESS

"**Presupposition 2:** The modified proposition is low on the salient scale."

c. $\neg\exists q\,[q >_S p \rightarrow q(w) = 1]$ NO MORE

"**Truth Conditional Content:** There is no higher scalar alternative that is true."

Under such a canonical view of *only* as 'exclusive', *only* is equivalent to 'nothing but' or 'nothing more than', which accounts for its meaning in declarative assertions, (546).

(546) a. Ich habe **nur** Hans gesehen. = Ich habe **niemanden außer** Hans gesehen.
I have only Hans seen I have nobody but Hans seen
'I have **only** seen Hans.' 'I have **not** seen **anyone but** Hans.'

b. Ich habe **nur** drei Äpfel. = Ich habe **nicht mehr als** drei Äpfel.
I have only three apples I have not more than three apples
'I **only** have three apples.' 'I do **not** have **more than** three apples.'

What becomes clear instantly is that optatives do not convey such an exclusive meaning.

(547) a. If I had **only** seen John!
= I wish I had seen John.
≠ I wish I had not seen anyone but John.
(cf. #If I hadn't seen anyone but John!)

b. If I **only** had three apples!
= I wish I had three apples.
≠ I wish I did not have more than three apples.
(cf. #If I did not have more than three apples!)

c. If **only** it had rained!
= I wish it had rained.
≠ I wish nothing else but rain had occurred (e.g. no thunder and lightning).
(cf. #If nothing had happened but rain!)

The intuition that optative *only* is not equivalent to an exclusive construction such as *nothing but* or *no more than* is corroborated by the fact that in French *seulement* 'only' can occur in optatives, but *ne...que* 'nothing but' cannot.

(548) a. Si **seulement** Jean avait écouté Marie!
if only Jean had listened.to Marie
'If **only** Jean had listened to Marie!'

b.* Si Jean **n'**avait **que** écouté Marie!
if Jean NEG'had ONLY listened.to Marie

Therefore, a compositionality problem arises that can be summarized as follows. If *only* always has an exclusive reading, as given in (545), how can we account for *only* in optatives where it does not seem to contribute exclusivity?

#### 6.2.1.3 The Solution in Brief

To solve the present compositionality problem, I follow Guerzoni (2003) and argue that many languages have two readings for *only*, which we can call $\text{ONLY}_1$ (or $only_1$) and $\text{ONLY}_2$ (or $only_2$). Guerzoni (2003) proposes that German has $\text{ONLY}_2$, which is non-

exclusive (at the level of assertion), truth-conditionally vacuous. I depart from Guerzoni in assuming that the core contribution of ONLY$_2$ is a lowness presupposition and that ONLY$_2$ may lack exclusivity altogether. The two lexical entries that I assume are given below. Example (549) now accounts for the standard exclusive reading of *only*, as illustrated in (546) for German and English.

(549)a. $\|only_{1,C}\| = \lambda S.\lambda p.\lambda w:\ p(w) \vee \exists q\ [q >_S p \rightarrow q(w) = 1] \wedge$ AT LEAST

"**Presupposition 1:** The modified proposition or a higher scalar alternative is true."

b. $\text{MOST } q \in g(C)\ [q >_S p]\ .$ LOWNESS

"**Presupposition 2:** The modified proposition is low on the salient scale."

c. $\neg \exists q\ [q >_S p \rightarrow q(w) = 1]$ AT MOST

"**Truth Conditional Content:** There is no higher scalar alternative that is true."

Contrastively, (550) accounts for the non-canonical reading of *only* that we see in optatives cross-linguistically.

(550)a. $\|only_{2,C}\| = \lambda S.\lambda p:\ \text{MOST } q \in g(C)\ [q >_S p]\ .$ LOWNESS

"**Presupposition:** The modified proposition is low on the salient scale."

b. $p$ IDENTITY

"**Truth Conditional Content:** *only*$_2$ is truth-conditionally vacuous."

Essentially, the contribution of *only* in an optative amounts to marking the modified proposition as low on a salient scale, typically the speaker's preference scale. An open issue that I will not be able to address concerns the question of how ONLY$_2$ and ONLY$_1$ are composed from their meaning components. Given that, as I will show, both elements seem to share a lowness presupposition, this presupposition may be at the semantic core of *only* type elements. If we abbreviate the lowness presupposition of both *only* elements, ((549b)+(550a)) as LOW and the combination of *at least* presupposition and *at most* assertion that ONLY$_1$ exhibits ((549a+c)) as EXH (for *exhaustivizer*, the meaning that underlies 'exactly') we can write generalizations as in (551a+b).

(551) a. **only$_1$:** {LOW, EXH} $\Rightarrow_{PF}$ *only*

b. **only$_2$:** {LOW} $\Rightarrow_{PF}$ *only*

It is conceivable that *exactly* (as in *I have exactly three apples* versus *I have only three apples*) is the spell-out of EXH on its own, but this is beyond the scope of my investigation.

The following section motivates the proposal in (549)+(550) by introducing a construction that to my knowledge has gone unnoticed in the past: Conditional clauses with non-exclusive (thus optative-like) *only* in the antecedent, which convey (non-evaluatively) that the antecedent proposition is likely to come about (which in many cases amounts to saying that the antecedent proposition is 'easy to achieve'). I will call this construction *minimal sufficiency conditional.*

### 6.2.2 The Missing Link: Minimal Sufficiency Conditionals

#### 6.2.2.1 Two Readings for *Only* in Conditionals

In this section, I argue that German has two readings for *only* in conditional antecedents: The standard exclusive reading and an additional reading, which I will call the *minimal sufficiency reading.* The minimal sufficiency reading amounts to the lexical entry of ONLY$_2$ that I proposed above. In this reading, *only* merely triggers a presupposition that the modified proposition is low on a salient scale. The clearest example to illustrate this ambiguity is (552) (which, notably, lacks optative-like positive evaluation). Native speakers of German share the intuition that (552a) has both the reading in (552b) and the reading in (552c). (We will see that this intuition is also present in many other languages, but -- *alas* -- not in English.) In the given example, (552c) is, in fact, the more natural reading, unless more context is given (e.g. if more than two people are required to keep the balance). I will first discuss German in some more detail to show that this is a reading that really exists. I discuss a range of other languages in the next section, and I will subsequently discuss English, which does not seem to allow for the reading in (552c).

(552) a. Wenn **nur** zwei Personen einsteigen, wird das Boot sinken.
if only two persons get.in will the boat sink
*lit.* 'If only two persons get into the boat, the boat will sink.'

b. ONLY$_1$ reading:

If **no more than** two persons (i.e. < 3 people) get into the boat, it will sink.

c. ONLY$_2$ reading:

If **(at least)** two persons (i.e. ≥ 2 people) get into the boat, **which is not a lot,** it will sink.

Given that this construction does not seem to have been noticed before, it is worth pointing out that there is an abundance of naturally occurring conditionals that contain *only* with an ONLY$_2$ reading. A good recipe for finding such minimal sufficiency conditionals is to search for constructions where *only* is followed by a negative DP (*niemand* 'nobody' or *keiner* 'none') or universal DP (*jeder* 'every'), as this forces sentential focus (cf. Büring & Hartmann's 2001 generalization), which disprefers canonical ONLY$_1$ readings (plausibly due to its exhaustivity content). As indicated by the paraphrases, the minimal sufficiency reading is the dominant reading in all of the given examples. (A canonical reading for *nur* 'only' can be construed but is rather unnatural.) Consider first two examples where *nur* 'only' is followed by *niemand* 'nobody', in (553).

(553)a. Der Verein (zur Förderung des Zahlungsunwillens) hatte
the society for advancement of reluctance.to.pay had
Gesellschaftsveränderung auf seine Fahnen geschrieben und meinte diese
social.change on its flags written and thought this
zu erreichen, [wenn **nur** niemand seine Rechnungen bezahlte].
to achieve if only nobody his bills paid
'The society to support reluctance to pay was committed to social change and believed to achieve it [if only nobody paid any bills].'
(Dietmar Sievers. 1996. 'Die Brüsewitz-Maschine'. In *Wandler, Zeitschrift für Literatur* 19.)
*paraphrase:* (The society believed that) [for nobody to pay any bills] was an **easy means** to achieve social change.

b. Es scheint immer noch Menschen zu geben, die meinen, die Neonazis
it seems always still humans to give who think the Neonazis

würden von selbst verschwinden, [wenn **nur** niemand hinschaut],
would by self disappear if only nobody looks

'There still seem to be people who believe the Neonazis would disappear automatically [if only nobody pays attention to them].'

('Nazis sollen nicht unter sich bleiben. Zehntausende werden sich symbolisch und aktiv rechter Demonstration in den Weg stellen.' *Neues Deutschland.* February 13, 2010)

*paraphrase:* (People believe that) [for nobody to watch] is an **easy means** to make the Neonazis go away.

Consider now (554), an illustration where *nur* 'only' is followed by *keiner* 'none'.

(554) Das Ideal der Gleichheit ist das Ideal der Masse, die zufrieden
the ideal of.the equality is the ideal of.the mass that content

ist, [wenn **nur** keiner mehr hat als der andere].
is if only nobody more has than the other

'The ideal of equality is the ideal of a population that is content [if only nobody has more than the others].'

(Werner Jaeger. 1944/1973. 'Platos Gorgias: Der Erzieher als der wahre Staatsman'. In *Paideia,* Vol.2, 704-743. Berlin: de Gruyter.)

*paraphrase:* (The ideal of equality is fulfilled in a situation where) [for nobody to have more than the others] is an **easy means** to satisfy the masses.

Finally, (555) shows two examples where *nur* 'only' is followed by *jeder* 'everyone'.

(555)a. es sind gerade die unterschiedlichen meinungen, die hier den reiz
it are exactly the differing opinions that here the appeal

des diskutierens ausmachten, [wenn **nur** jeder jedem seine
of.the discussing created if only everyone to.everyone his

meinung gelassen hat, ohne persönlich zu werden].
opinion left has without personally to become

'It was the differing opinions themselves that made discussions interesting here, [if only everyone allowed everyone else to have a different opinion without making it personal].'

(online post on www.heute.de, 1/10/2009)

*paraphrase:* [For everyone to allow everyone else to have a different opinion] is an **easy means** to achieve an interesting discussion.

b. *Context: Quite generally, people refuse to car-share, because they're convinced that their own car doesn't make much of a difference.*

[Wenn **nur** jeder so denkt], haben wir das Fiasko Berufsverkehr
if only everyone so thinks have we the fiasco work.traffic

jeden morgen.
every morning

'[If only everyone thinks like that], we already have the work traffic chaos every morning.'

(online post on blogs.emeraldsecret.com, 12/21/2010)

*paraphrase:* [For everyone to think like that] is an **easy means** to create catastrophical work traffic every morning.

Examples (553)-(555) witness the existence for such minimal sufficiency readings, but naturally the question arises what exactly is going on here, which is why I will briefly discuss some constructed examples.

First, we can devise an elimination procedure that brings out one or the other reading at a time. Consider the constructed example in (556), which is ambiguous between the two readings, as indicated.

(556) Wenn **nur** $[\text{zwei}]_F$ Leute kommen, spielen wir Siedler von Catan.
if only two people come play we Settlers of Catan
'If only two people come, we will play Settlers of Catan.'

a. ONLY$_1$: [If **no more than** two people come], we will play Settlers of Catan (because all other games require a larger group).

b. ONLY$_2$: [If **at least** two people come, **which is easy to achieve**], we will play Settlers of Catan.

The following examples show that we can eliminate one or the other reading by adding discourse particles into the matrix clause. The canonical reading can be blocked by inserting *schon* (lit. 'already') into the matrix clause, (557). (I will discuss *schon*

'already' separately in section 6.2.4.) Similarly, the minimal sufficiency reading can be blocked by inserting *halt eben* (approximately 'simply') into the matrix clause, (558).

(557) Wenn **nur** [zwei]$_F$Leute kommen, spielen wir **schon** Siedler von Catan.
if only two people come play we schon Settlers of Catan
'If only two people come, we'll already play Settlers of Catan.'

*ONLY$_1$ / ✓ONLY$_2$

(558) Wenn **nur** [zwei]$_F$Leute kommen, spielen wir **halt eben** Siedler von Catan.
if only two people come play we halt eben Settlers of Catan
'If only two people come, we'll simply play Settlers of Catan.'

✓ONLY$_1$ / *ONLY$_2$

We can also show that the two readings are available irrespective of the scope of *nur* 'only', by contrasting *mit nur einer Person* 'with only one person' and *nur mit einer Person* 'only with one person'.

(559) Wenn der Otto **nur** mit [einer]$_F$ Begleitperson kommt, spielen wir
if the Otto only with one person comes play we

Siedler von Catan.
Settlers of Catan

'If Otto comes with one guest, we will play Settlers of Catan.'

a. ONLY$_1$: [If Otto does **not** bring **more than** one guest], we will play Settlers of Catan (because all other games require a larger group).

b. ONLY$_2$: [If Otto brings **at least** one guest, **which is easy to achieve**], we will play Settlers of Catan.

Again, we can block one of the two readings by means of the above particles.

(560) Wenn der Otto **nur** mit [einer]$_F$ Begleitperson kommt, spielen wir
if the Otto only with one person comes play we

**schon** Siedler von Catan.
already Settlers of Catan

'If Otto only comes with one guest, we will play Settlers of Catan.'

*ONLY$_1$ / ✓ONLY$_2$

(561) Wenn der Otto **nur** mit [einer]$_F$ Begleitperson kommt, spielen wir
if the Otto only with one person comes play we

**halt eben** Siedler von Catan.
simply Settlers of Catan

'If Otto only comes with one guest, we will play Settlers of Catan.'

✓ONLY$_1$ / *ONLY$_2$

Similarly, we can construct examples where *nur* 'only' is placed PP-internally, i.e. scope and (narrow) focus are limited to the numeral (e.g. Bayer 1996). Still, both readings are available.

(562) Wenn der Otto [$_{PP}$ mit **nur** [einer]$_F$ Begleitperson] kommt, spielen wir
if the Otto with only one person comes play we

Siedler von Catan.
Settlers of Catan

'If Otto comes with only one guest, we will play Settlers of Catan.'

a. ONLY$_1$: [If Otto does **not** bring **more than** one guest], we will play Settlers of Catan (because all other games require a larger group).

b. ONLY$_2$: [If Otto brings **at least** one guest, **which is easy to achieve**], we will play Settlers of Catan.

Once again, *schon* 'already' and *halt eben* 'simply' disambiguate.

(563) Wenn der Otto [$_{PP}$ mit **nur** [einer]$_F$ Begleitperson] kommt, spielen wir
if the Otto with only one person comes play we

**schon** Siedler von Catan.
already Settlers of Catan

'If Otto comes with only one guest, we will play Settlers of Catan.'

*ONLY$_1$ / ✓ONLY$_2$

(564) Wenn der Otto [$_{PP}$ mit **nur** [einer]$_F$ Begleitperson] kommt, spielen wir
if the Otto with only one person comes play we

**halt eben** Siedler von Catan.
simply Settlers of Catan

'If Otto comes with only one guest, we will play Settlers of Catan.'

✓ONLY$_1$ / *ONLY$_2$

Conversely, we can show that both readings of *only* are compatible with wide sentential focus on the entire proposition. We can enforce wide focus on the entire clause by placing *jeder* 'everyone' after *nur* 'only'. Once again, both the canonical ONLY$_1$ reading and the minimal sufficiency ONLY$_2$ reading are available; this time, we disambiguate by means of the continuation. In the naturally occurring example (565a) the intended reading is an ONLY$_2$ reading, as witnessed by the presence of *schon* 'already' in the matrix clause. Contrastively, the constructed example (565b) has an ONLY$_1$ reading (compatible with *halt eben* 'simply').

(565)a. Wenn **nur** [jeder einmal etwas pro Seminareinheit sagt]$_F$,
if only everyone once something per seminar.unit says

hätte man **schon** meist zwischen 10-20 Wortmeldungen
had one schon mostly between 10-20 requests.to.speak

'[If only everyone said one thing per seminar], it would already come to 10-20 contributions.'

(online post on www.aufmuken.at, 02/11/2010)

*paraphrase:* [For everyone to say one thing per seminar] is an **easy means** to
(ONLY$_2$) achieve 10-20 contributions.

b. Wenn **nur** [jeder einmal etwas pro Seminareinheit sagt]$_F$,
if only everyone once something per seminar.unit says

kommen wir mit unserem Projekt (**halt eben**) nie weiter!
come we with our project simply never further

'[If only everyone says one thing per seminar], we'll never make progress on our project!'

*paraphrase:* [If nothing more happens than everybody saying one thing per
(ONLY$_1$) seminar unit] we won't ever make progress on our project.

It is worth eliminating the scope of *nur* 'only' as a possible confound. We have already seen in (559)-(565) that the overt position of *nur* 'only' and the size of the focus constituent does not determine whether we get an $\text{ONLY}_1$ or $\text{ONLY}_2$ reading. Could it be that *nur* 'only' projects out of the *if*-clause that it appears in and takes scope over the matrix clause or the entire conditional? Evidence that minimal sufficiency *nur* 'only' does not take scope outside of the *if*-clause can is easily established; none of (566b-d) convey the same as (566a).

(566) a. [Wenn **nur** [zwei]$_F$ Leute kommen], spielen wir **schon** Siedler.
if only two people come play we schon Settlers
'If only two people come, we'll already play Settlers.'

≈ If at least two people come, which is easily the case, we will play Settlers.

b. **Nur** [wenn zwei Leute kommen], spielen wir (***schon**) Siedler.
only if two people come play we schon Settlers
'Only if two people come, we'll play Settlers.'

≈ Only if two people come, we will play Settlers.

c. [Wenn zwei Leute kommen], spielen wir **nur** (***schon**) Siedler.
if two people come play we only schon Settlers
'If two people come, we'll only play Settlers.'

≈ If two people come, we will play nothing but Settlers.

d. **Nur**, [Wenn zwei Leute kommen, spielen wir (**schon**) Siedler].
only if two people come play we schon Settlers
'Only, [If two people come, we'll already play Settlers].'

≈ The only thing you're forgetting is: If two people come, we will play Settlers.

We are thus justified in concluding that German *nur* 'only' in *if*-clauses allows for two readings, a canonical (negative/exclusive) reading $\text{ONLY}_1$ and a (positive) minimal sufficiency reading $\text{ONLY}_2$.

#### 6.2.2.2 "Optative *Only*" is "Minimal Sufficiency *Only*"

In this section, I argue that optative *only* is an instance of minimal sufficiency *only*, i.e. $\text{ONLY}_2$. We have already seen above that an analysis of optative *only* as $\text{ONLY}_1$ does not

give rise to the correct meaning. This alone is motivation for assuming that optative *only* is ONLY$_2$, i.e. minimal sufficiency *only*, now that we know that such a reading exists. However, we can make stronger arguments that optative *only* is ONLY$_2$. The first argument is based on the relative scope with respect to clausal adverbs. The second argument is based on cross-linguistic correlations.

Let us first discuss the scope of *only*. We have seen that *nur* 'only' has both the ONLY$_1$ reading and the ONLY$_2$ reading in conditional antecedents, irrespective of its scope and of the size of the focus constituent. However, one thing we have not looked at so far is the scope of *nur* 'only' with respect to co-occurring sentential adverbs. If we insert *wieder* 'again', we observe that ONLY$_2$-readings are only possible if *nur* 'only' precedes *wieder* 'again' and ONLY$_1$-readings are only possible if *nur* 'only' follows *wieder* 'again'.

(567) a. Wenn wieder **nur** zwei Personen einsteigen, wird das Boot sinken.
if again only two persons get.in will the boat sink
*lit.* 'If once again only two persons get into the boat, the boat will sink.'

b. ✓ONLY$_1$: If, once again, **no more than** two persons get in, the boat will sink.

c. * ONLY$_2$: If, once again, **at least** two persons get in, the boat will sink.

(568) a. Wenn **nur** wieder zwei Personen einsteigen, wird das Boot sinken.
if only again two persons get.in will the boat sink
*lit.* 'If once again only two persons get into the boat, the boat will sink.'

b. * ONLY$_1$: If, once again, **no more than** two persons get in, the boat will sink.

c. ✓ONLY$_2$: If, once again, **at least** two persons get in, the boat will sink.

This pattern is, crucially, reproduced in optatives. Recall that optatives without any of the prototypical particles (*nur* 'only', *wenigstens* 'at least', *doch* in German) are typically deviant. If optative *only* is ONLY$_2$, we predict that optative *only* must precede *wieder* 'again'. This is indeed the case (see also Rifkin 2000 for similar observations in English).

(569) a. Wenn **nur** wieder / # wieder **nur** zwei Personen einsteigen!
if only again again only two persons get.in
'If only, once again, two people get in!'

b. Wenn **nur** wieder / # wieder **nur** zwei Personen eingestiegen wären!
if only again again only two persons get.in were
'If only, once again, two people had gotten in!'

The second argument that optative *only* is $\text{ONLY}_2$ is based on cross-linguistic comparison. For now, I will postpone a discussion of English, which I will come to in the next section. We have already seen in chapter 2 that there are some languages that allow for optatives with 'at least' but do not allow for optatives with 'only'. This gives rise to the following interesting prediction. Languages that form optatives with 'only' should also (typically) allow for $\text{ONLY}_2$ readings. (English is an exception, as we will see.) Conversely, languages that cannot form optatives with 'only' should also disallow $\text{ONLY}_2$ readings. Overall, this is exactly what we find. Consider first a sample of non-$\text{ONLY}_2$ languages.

Brazilian Portuguese, Spanish, Greek and Catalan all disallow for *only* in optatives. As predicted, none of these languages allows for $\text{ONLY}_2$ readings.

(570) *Brazilian Portuguese*

a. Se **só/apenas** duas pessoas entrarem neste barco, ele vai afundar.
if only two people enter in-this boat he will sink
*lit.* 'If only two people get on the boat, the boat will sink.' (✓$\text{ONLY}_1$ / *$\text{ONLY}_2$)

✓$\text{ONLY}_1$: *The boat will sink if **less than three persons** get in.*
*$\text{ONLY}_2$: *The boat will sink if **more than one person** get in.*

b. Se **ao menos** / ***só**/ ***apenas** o João tivesse ouvido a Maria!
if at least *only *only the John had listened.to the Mary
'If **at least** / ***only** John had listened to Mary!'

(571) *Spanish*

a. Si **solo** dos personas se montan en esa barca, se hundira
if only two people self get on that boat self will.sink
*lit.* 'If only two people get on the boat, the boat will sink.' (✓$\text{ONLY}_1$ / *$\text{ONLY}_2$)

b. Si ⟨***solo**⟩ Juan hubiera ⟨**al menos**⟩ escuchado a María!
if *only Juan had.sub.past at least listened to Mary
'If **at least** / ***only** John had listened to Mary!'

(572) *Greek*

a. An **mono** dhio anthropi anevun s'afto to plio, tha vuliaksi.
if only two people enter on-this the boat fut sink
*lit.* 'If only two people get on the boat, the boat will sink.' (✓ONLY$_1$ / *ONLY$_2$)

b. An **toulachiston** / ***mono** o John iche akusi tin Mary!
if at.least *only the John.nom had.3sg listened the Mary.acc
'If John had **at least / *only** listened to Mary!'

(573) *Catalan*

a. Si **només** pugen dues persones en aquesta barca, s'enfonsarà.
if only get.in two people on that boat self.will.sink
*lit.* 'If only two people get on the boat, the boat will sink.' (✓ONLY$_1$ / *ONLY$_2$)

b. Si **almenys** / ***només** hagués escoltat (a) la Maria!
if at.least *only had.subjunctive listened to the Mary
'If **at least / *only** he had listened to Mary!'

Inversely, at least a subset of languages (excluding English) that allow for *only* in optatives can also be shown to have ONLY$_2$ readings. We have already seen this for German, but it is worth showing that *bloß* 'only' behaves on a par with *nur* 'only', (574).

(574) *German*

a. Wenn **bloß** zwei Personen einsteigen, wird das Boot sinken.
if only two persons get.in will the boat sink
*lit.* 'If just two persons get into the boat, the boat will sink.' (✓ONLY$_1$ / ✓ONLY$_2$)

b. Wenn Hans **bloß** auf Maria gehört hätte!
if Hans only to Maria listened had
'If **only** Hans had listened to Mary!'

(575) *Italian*

a. Se **solo/solamente** due persone salissero su questa barca, affonderebbe
if only two persons enter in this boat it.will.sink
*lit.* 'If only two persons get into the boat, the boat will sink.' (✓ONLY$_1$ / ✓ONLY$_2$)

b. Se **solo/solamente** John avesse ascoltato/%ascoltava Maria!
if only John had listened.to(past.subj/%ipv) Mary
'If **only** John had listened to Mary!'

(576) *Lebanese Arabic*[107]

a. iza **bass** shaxs-ein tel3ou 3a-ha-sh-shaxtoura, b-teghra'
if only person-dual got-3p on-this-the-boat, sink.ipfv.3sf
*lit.* 'If only two persons get into the boat, the boat will sink.' (✓ONLY$_1$ / ✓ONLY$_2$)

b. (Ah,) law kent **bass** ghani!
oh if was.1s only rich
'If only I were rich!'

(577) *Czech*

a. Kdy-by **jen** dva lidi nasedli na tuto lod', potopila by se.
when-subj.3 only two people get(pptc) on this boat sink(pptc) subj self
*lit.* 'If only two persons get into the boat, the boat will sink.' (✓ONLY$_1$ / ✓ONLY$_2$)

b. Kdy-by **jen** Honza poslechl Marii!
when-subj.3 only Honza listened(pptc) Marie.acc
'If **only** John (had) listened to Mary!'

(578) *Polish*

a. Jeśli **tylko** dwie osoby wejdą na ten statek, to zatonie.
if only two people enter on this ship then sink
*lit.* 'If only two persons get into the boat, the boat will sink.' (✓ONLY$_1$ / ✓ONLY$_2$)

b. Gdyby / Żeby **tylko** Jan (po)słuchał Marii.
if if only John listen.(perf.)pret.3sg.m Mary.gen.nom.f
'If **only** John had listened to Mary!'

(579) *Serbian*

a. Ako se **samo** dva čoveka popnu na palubu, brod će potonuti.
if self only two man climb on deck ship will sink
*lit.* 'If only two persons get into the boat, the boat will sink.' (✓ONLY$_1$ / ✓ONLY$_2$)

b. Da je **samo** Jovan poslušao Mariju!
that be.3sg only John listened Mary-acc
'If **only** John had listened to Mary!'

---

[107] The difference between *iza* 'if' and *law* 'if' is tense/aspect related and should not concern us here.

(580) *Norwegian*[108]

a. Dersom **bara** to personer går i denna båten, så synker'n
if only two people get in this boat then sinks'it
*lit.* 'If only two persons get into the boat, the boat will sink.' (??ONLY$_1$ / ✓ONLY$_2$)

b. Om / Hvis han **bare** hadde kjørt litt fortere!
if if he only had driven little faster
'If **only** he had driven a little faster!'

We thus find a strong correlation between the possibility of ONLY$_2$ readings in non-optative conditionals and the possibility of *only* in optatives. However, as anyone is bound to notice, English does not comply with this generalization. I will thus address English separately in the following section.

#### 6.2.2.3 English is a language where minimal sufficiency is restricted

In the preceding section, we have established a correlation between the presence of *minimal sufficiency only* in conditionals (also ONLY$_2$) and optative *only* in a language. English is a language that appears to blatantly violate this correlation, as shown in (581); while *if-only*-optatives are the core examples of optative constructions in modern English (cf. (581b)), ONLY$_2$ readings are not generally available.

(581)a. If only two people get into the boat, it will sink.
✓ONLY$_1$: *The boat will sink if **less than three persons** get in.*
* ONLY$_2$: The boat will sink if **more than one person** get in.

b. If only John had listened to Mary!

This is puzzling. However, I propose that minimal sufficiency *only* in English has undergone a grammaticiziation process, where preference-orientation has become part of the lexical entry. While languages like German, Czech, Lebanese Arabic, Polish, Serbian,

[108] Interestingly, the dominant reading in Norwegian is one where the boat will sink if exactly two people get in. This reading also emerges in Dutch if the word *alleen* 'only' is used as a translation for *only*.

Norwegian and Italian employ *only*$_2$, as given in (582), English *only*$_2$ has become *only*$_{OPT}$, hardwiring an additional presupposition, as given in (583)[109].

(582) a. $\|only_{2,C}\| = \lambda S.\lambda p :$ MOST $q \in g(C)$ $[q >_S p]$ . LOWNESS

"**Presupposition:** The modified proposition is low on the salient scale."

b. p IDENTITY

"**Truth Conditional Content:** *only*$_2$ is truth-conditionally vacuous."

(583) a. $\|only_{OPT,C}\| = \lambda S.\lambda p :$ MOST $q \in g(C)$ $[q >_S p] \wedge$ LOWNESS

"**Presupposition 1:** The modified proposition is low on the salient scale."

b. S is a bouletic ordering . BOULETIC

"**Presupposition 2:** The contextually salient scale is a bouletic scale."

c. p IDENTITY

"**Truth Conditional Content:** *only*$_{OPT}$ is truth-conditionally vacuous."

Motivation for assuming a stricter link between *only* and optativity in English than in other languages is the fact that English has more or less lost the ability of forming optative clauses without *only*; in other words *only*$_{OPT}$ has become an obligatory optative marker in English and lost its non-optative uses.

This is supported by the following pattern. While most languages employ more than one strategies of licensing optativity, English can only form optatives by means of *only*.

(584) a. **Ach,** wenn ich reich wäre! *German*
b. Wenn ich **nur** reich wäre!
c. Wenn ich **wenigstens** reich wäre!
oh if I only at.least rich were
'If only I were (at least) rich!'

(585) a. **Ah,** law kent ghani! *Lebanese Arabic*
b. law kent **bass** ghani!
c. **Ah,** law kent **?al a'all** ghani!
oh if was.1s only on.the least rich.1sm
'If only I were (at least) rich!'

[109] As we will see, concessive *at least* shares the presupposition (583b), i.e. this is less exotic than appears.

(586) a. **Eh,** da je Jovan poslušao Mariju! *Serbian*
b. Da je **samo** Jovan poslušao Mariju!
c. Da je Jovan **barem** poslušao Mariju!
oh, that be.3sg only John at.least listened Mary-acc
'If only John had at least listened to Mary!'

(587) a. # **Oh,** if John had listened to Mary! *English*
b. If **only** John had listened to Mary!
c. # If John had **at least** listened to Mary!
d. # If **at least** John had listened to Mary!

Furthermore, English still has residual ONLY$_2$ readings, in cases where a positive evaluation is present, as in (588), which seems somewhat idiosyncratic.

(588) a. It was a remarkable performance, an inspiring example of what the busy man of affairs can really accomplish [if he **only** applies himself].
(Thomas Wolfe. 1934. *You Can't Go Home Again.* New York: Harper & Row, p.255.)
b. According to [the American] dream, hard work, discipline and frugality will bring success. Everyone can be a millionaire [if he **only** applies himself].
(Peter J. Leithart. 2006. "Death of a Salesman". In *Omnibus III. Reformation to the Present,* ed. by Douglas Wilson and G. Tyler Fischer. Lancaster, PA: Veritas Press, p.551)
c. Jenkins has made it to where he is by his own efforts. It only goes to show what a good Welsh boy can do [if **only** he applies himself].
(Ken Jones. 1999. "Rugby Union: Jenkins kicks Wales into the reckoning". The Independent.)

To the extent that an example like (589) has an ONLY$_2$ reading, a positive evaluation is strongly implied, as indicated by the infelicitous continuation.

(589) If only two people had entered the boat, it would have sunk.
... # which of course I wouldn't have wanted!

We can thus safely conclude that *only*$_2$ in English has undergone a grammaticization process and become inherently preference-oriented / bouletic.

Do we find other languages that behave like English? It may be the case that English is not isolated in its behavior. Languages that allow for *only* in optatives but do not

appear to have ONLY$_2$ readings in regular conditionals include Icelandic, Russian, Hebrew and Finnish. However, I would like to briefly discuss Dutch to show that the data sometimes diverge in ways that we currently cannot grasp an understanding of, and that quite possibly involve factors of plausibility and discourse, and maybe prosody, which cannot always be controlled for when eliciting translations and judgments. Example (590a) shows that an ONLY$_2$ reading is unacceptable for many native speakers of Dutch in the test example that I have used (though some native speakers accept an ONLY$_2$ reading in (590a)). Nevertheless, Dutch allows for *only* in optatives without restrictions, (590b).

(590) *Dutch*

a. Als **maar** twee mensen in deze boot stappen, zal het zinken.
if only two people in this boat step will it sink
*lit.* 'If only two persons get into the boat, the boat will sink.' (✓ONLY$_1$/%ONLY$_2$)

b. Als Jan (nou) **maar** naar Marie had geluisterd!
if Jan PRT only/but to Marie had listened
'If **only** John had listened to Mary!'

First of all, the ONLY$_2$ reading seems to emerge if we add additional material, including *al* 'already'; this does however not entail that an ONLY$_2$ reading is really available, as we will see in our discussion of 'already', section 6.2.4.

(591) Als er **maar** twee mensen in deze boot stappen, zal het al zinken.
if there only two people in this boat step will it already sink
'If only two persons get into the boat, it will already sink.' (✓ONLY$_1$/✓ONLY$_2$)

Secondly, and more importantly, if we look beyond this constructed example, we do find cases of Dutch conditionals that seem to contain minimal sufficiency *only*, and these examples are generally accepted by native speakers. How do we find these examples? Consider first the following naturally occurring German example, (592a). An important intuition is that (592a) seems equivalent to the paraphrase in (592b), which uses *as long as* instead of *if only*. Looking for conditionals with such readings is thus a good heuristic to detect ONLY$_2$ readings.

(592) a. Das Ideal der Gleichheit ist das Ideal der Masse, die zufrieden
the ideal of.the equality is the ideal of.the mass that content
ist, [**wenn nur** keiner mehr hat als der andere].
is if only nobody more has than the other
'The ideal of equality is the ideal of a population that is content [**if only** nobody has more than the others].'
(Werner Jaeger. 1944/1973. 'Platos Gorgias: Der Erzieher als der wahre Staatsman'. In *Paideia*, Vol.2, 704-743. Berlin: de Gruyter.)

b. Das Ideal der Gleichheit ist das Ideal der Masse, die zufrieden
the ideal of.the equality is the ideal of.the mass that content
ist, [**solange** keiner mehr hat als der andere].
is as.long.as nobody more has than the other
'The ideal of equality is the ideal of a population that is content [**as long as** nobody has more than the others].'

The following four examples are slightly modified versions of natural occurrences (which I found on google)[110]. What we observe in each of these examples seems to be an $\text{ONLY}_2$ reading, as $\text{ONLY}_1$ readings do not seem to make sense in these constructions. In none of the examples is the proposition in the consequent contingent on whether something more than the antecedent proposition happens (in which case it should not follow under an $\text{ONLY}_1$ reading), or not (in which case it should follow under an $\text{ONLY}_1$ reading).

(593) a. De hoeveelheid water hoef niet zoveel te zijn, **als maar** al het
the quantity water needs not so.much to be if only all the
poeder goed nat wordt.
powder thoroughly wet becomes
'The quantity of water needs not to be so high, **as long as** all the powder is thoroughly wetted.'
$\neq^{??}$ 'The quantity of water needs not to be so high, **if nothing happens except** that all the podwer is thoroughly wetted.' ($\text{ONLY}_1$ reading)

[110] Glosses and translations are courtesy of Erik Schoorlemmer (p.c.).

b. Het begint met een keertje krabben, en voor je het weet sta je je
it begins with a time scratch and before you it know are you you

elk vrij moment het schompes te harken, **als maar** niemand het ziet!
every free moment all over to rake if only nobody it sees

'It starts out with a little scratch, but before you know what is happening you are scratching yourself all over your body, **as long as** nobody sees it.'

$\neq^{??}$ 'It starts out with a little scratch, but before you know what is happening you are scratching yourself all over your body, **if nothing more happens than** that nobody sees it.' (ONLY$_1$ reading)

c. Hessing moet zelf weten welk schoonmaakmiddel wordt gebruikt,**als maar**
Hessing must self know which detergent is used if only

geen schade wordt aangebracht aan de aluminium goederen in de hal.
no harm is done to the aluminium goods in the hall

'Hessing must know himself which detergent to use, **as long as** no harm is done to the aluminium goods in the hall.'

$\neq^{??}$ 'Hessing must know himself which detergent to use, **if nothing else happens except** that no harm is done to the aluminium goods in the hall.' (ONLY$_1$ reading)

d. Zoals al eens eerder op het forum was gezegd: **als maar**
as already once before in this forum was said if only

iedereen op OSX overstapt komen daar ook wel virussen voor.
everybody on OSX change come there too indeed viruses for

'As has been said before on this forum: **as soon as** everybody switches to OSX, there will be viruses on that platform as well.'

$\neq^{??}$ '**If nothing else happens but that** everybody switches to OSX, there will be viruses on that platform as well.' (ONLY$_1$ reading)

We can thus tentatively conclude that Dutch may exhibit ONLY$_2$ readings after all, but simply not in the constructed example that I discussed above, i.e. we need to be aware of the risk of false negatives when applying our diagnostic for ONLY$_2$ readings.

Finally, before concluding this section, it is worth exploring the spectrum of *only* type expressions in English a bit further. We know that German has at least two elements that roughly mean 'only', namely *nur* 'only' and *bloß* 'only'.We have seen that both of them have an ONLY$_1$ reading and an ONLY$_2$ reading (e.g. in examples (552) and (574) above). If

we look beyond *only*, we discover that English *just* seems to have both readings as well[111]. This has been previously observed in Coppock & Beaver (to appear), cf. (594).

(594) **Just** the thought of him sends shivers down my spine.

(Coppock & Beaver to appear)

✓ONLY$_1$: ***Nothing but** the thought of him sends shivers down my spine.*

✓ONLY$_2$: *The thought of him **(and possibly other things)** sends shivers down my spine, **and that's something rather minimal.***

As shown in (595), *just* also seems to have ONLY$_2$ readings (as well as ONLY$_1$ readings) in conditionals[112]; we can thus conclude that *just* may be more typical from a cross-linguistic perspective than *only* itself.

(595) a. But it does work reasonably well, and if you use it **just** once, you've saved more than the purchase price. ⇒ **ONLY$_2$** *reading preferred*

(http://www.amazon.com/Paylak-LK6-4-Watch-Sizing-Repair/dp/B0015SHC8Y)

b. One good thing about pu-erh is that you can use the same cake over and over for multiple infusions. If you use it **just** once, you're wasting tea. ⇒ **ONLY$_1$**

(http://www.face-natural.com/blog/natural-skin-care-articles/super-teas-for-natural-skin-care)

c. If **just** two people get into the boat, it will sink.

✓ONLY$_1$: *The boat will sink if **no more than two persons** get in.*

✓ONLY$_2$: *The boat will sink if **at least two persons** get in, **which is not a lot.***

In line with the generalization that ONLY$_2$ can be used in optatives, (596) shows that *just* can indeed license optatives in English (see also Quirk et al. 1985).

(596) a. Oh, if he **just** knew how much we miss him!
(= I wish he knew how much we miss him!)

b. Oh, if **just** once I could be a guest in such a beautiful house!
(= I wish I could once be a guest in such a beautiful house!)

---

[111] I thank Liz Coppock for suggesting that *just* may have a reading similar to what I call a *minimal sufficiency reading*.

[112] Some speakers report that the ONLY$_2$ reading is hard to access in (595c), whereas other speakers find it perfectly natural.

We can thus conclude that languages differ internally as to which *only* type elements have ONLY$_2$ readings and which ones do not.

### 6.2.3 A Generalized *Only*$_2$ for Optatives and Beyond

The plan now is to devise a uniform semantics for *only* in optatives and outside optatives. In this section, I briefly review ideas from the previous literature that indicate that every instance of *only* may be scalar in nature, as assumed in my entries for ONLY$_1$ and ONLY$_2$ above. I then argue that *lowness*, which is the main contribution of ONLY$_2$, cf. (598a), is indeed the main effect of placing *only* in an optative.

(597) a. $\|\text{only}_{1,C}\| = \lambda S.\lambda p.\lambda w:\ p(w) \vee \exists q\,[q >_S p \rightarrow q(w) = 1] \wedge$ AT LEAST

"**Presupposition 1:** The modified proposition or a higher scalar alternative is true."

b. $\text{MOST}\ q \in g(C)\ [q >_S p]\ .$ LOWNESS

"**Presupposition 2:** The modified proposition is low on the salient scale."

c. $\neg \exists q\ [q >_S p \rightarrow q(w) = 1]$ AT MOST

"**Truth Conditional Content:** There is no higher scalar alternative that is true."

(598) a. $\|\text{only}_{2,C}\| = \lambda S.\lambda p:\ \text{MOST}\ q \in g(C)\ [q >_S p]\ .$ LOWNESS

"**Presupposition:** The modified proposition is low on the salient scale."

b. $p$ IDENTITY

"**Truth Conditional Content:** *only*$_2$ is truth-conditionally vacuous."

Traditionally, the distinction between 'scalar *only*' and 'exclusive *only*' (e.g. Altmann 1976, 1978 for German) was used to distinguish between cases like (599a+b), which seem inherently scalar, excluding *higher alternatives*, and (599c), which seem to exclude all alternatives and are thus not scalar.

(599) a. Sam is only a [detective inspector]$_F$. (He is not a detective chief inspector.)

b. I only had [three]$_F$ cups of coffee. (I didn't have four cups.)

c. I only saw [Gene]$_F$. (I didn't see anybody else.)

An example that clearly illustrates that scalar, non-exclusive readings exist, and that *only* can be ambiguous between a 'scalar reading' and an 'exclusive reading' is provided by van Rooy (2002). The statement in (600) would be false under an exclusive reading, but the general intuition is that it is true in the given context, which is evidence for a 'scalar' reading of *only* in (600).

(600) *Context:* We are playing a card game against each other, and the *goal* is to win, and winning depends exclusively on who has the highest card. The king of diamonds is higher than the jack of hearts. You show me the king of diamonds and ask: 'What do you have?' Although I have three cards in my hands, I say:

a. **I only have [the jack of hearts]$_F$.** *(⇒ This is the highest card I have)*

(van Rooy 2002:156)

b. *paraphrase:* I have nothing **higher than** the jack of hearts.

Conversely, (601) is an example where *only* has an 'exclusive' reading, excluding all alternatives.

(601) *Context:* The children played with our cards and all of the cards are dispersed in the living room. We are searching for the lost cards and you have just found the fourth card since we started. You say that you've found four now. I have found a single card; I turn it around to look at it and say:

a. **I only have [the jack of hearts]$_F$.** *(⇒ This is the only card I have)*

b. *paraphrase:* I have nothing **except** the jack of hearts.

In the recent literature, the view has become progressively accepted that all of the examples in (599)-(601) are scalar and that they merely differ in the type of scale that they select (cf. Jacobs 1983, Bayer 1996, Klinedinst 2004, 2005, Krasikova & Zhechev 2006, Riester 2006, Beaver & Clark 2008). Let me begin with the inherently scalar uses of *only*, in (599a+b). The idea is that (599a) makes use of a non-logical scale, (602b), and (599b) makes use of a totally ordered logical entailment scale, (603b).

(602) a. Sam is only a [detective inspector]$_F$.

b. *Scale:* ... detective sergeant < detective inspector < detective chief inspector < ...

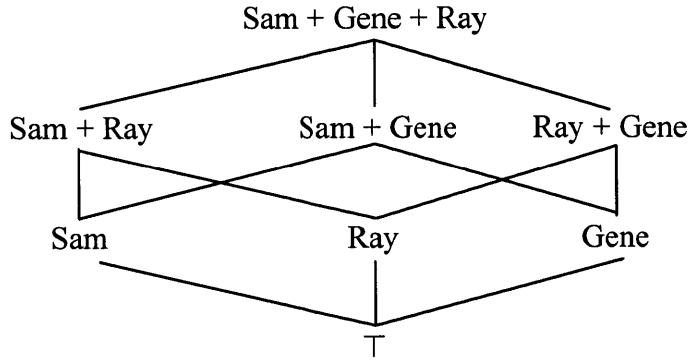
(603) a. I only had [three]$_F$ cups of coffee.

b. *Scale:* 0 cups < 1 cup < 2 cups < 3 cups < 4 cups < 5 cups < ...

For the apparent non-scalar uses, the assumption is that we are dealing with a partially ordered logical entailment scale, as given in (604).

(604) a. I only saw [Gene]$_F$.

b.




If we now assume the lexical entry in (597) for canonical *only*, we always get the right result. Due to its *at least* presupposition, (597a), and its *at most* assertion, (597b), we get the right results for declaratives. Nothing needs to be said for the totally ordered scales, as in (605). In contrast, in the case of partially ordered entailment scales, the exclusiveness of *only* is not directly conveyed, but follows as an entailment of presupposition plus assertion, as in (606d), which derives from (606b) plus (606c).

(605) a. Sam is only a [detective inspector]$_F$.

b. (AT LEAST) presupposition: Sam is at least a detective inspector.

c. (AT MOST) assertion: Sam is no more than a detective inspector.

(606) a. I only saw [Gene]$_F$.

b. presupposition: I saw at least Gene.

c. assertion: I did not see Ray + Gene, Sam + Gene or Sam + Gene + Ray.

d. entailment: I did not see Ray or Sam.

Analyzing the 'prejacent presupposition' (cf. Horn 1969) of *only* as an *at least* presupposition derives the fact that the modified proposition is not presupposed in questions if the scale is not an entailment scale (Horn 1969, Geurts & van der Sandt 2004, van Rooy & Schulz 2004, Klinedinst 2005), cf. (607a). With an entailment scale, (607b), every higher alternative entails the modified proposition.

(607) a. Is Sam only a [detective inspector]$_F$? $\not\Rightarrow$ Sam is a detective inspector.

b. Did you only see [Gene]$_F$? $\Rightarrow$ You saw Gene.

Evidence that so-called 'exclusive' readings are also scalar stems from two facts about 'exclusive' *only*. First, as Klinedinst (2005) points out, even 'exclusive' *only* cannot exclude weaker alternatives (e.g. Rooth 1992:fn.2). (608a) entails (608b), but clearly does not entail (608c).

(608) a. I only saw [Gene, Sam and Ray]$_F$.

b. $\Rightarrow$ I didn't see Chris and Annie.

c. $\not\Rightarrow$ I didn't see Gene.

Second, 'exclusive' uses of *only* trigger the same 'scalar lowness' presupposition as the more typical scalar readings, which further supports a view where *only* is always scalar. Klinedinst (2005) shows this with the example in (609). In the given context, (609a) and (609b) should be truth-conditionally equivalent; yet the continuation in (609a) is infelicitous, indicating that *only* conveys some notion of 'lowness'.

(609) *If the domain of relevant individuals is {John, Mary, Bill, Alex, Sue, Eric}*

a. The meeting was only attended by [John, Mary and Bill]$_F$,
# a surprisingly high turnout.

b. The meeting was attended by everyone except/but Alex, Sue and Eric,
a surprisingly high turnout.

(Klinedinst 2005)

As this lowness component of *only* is the part that I am mainly interested in, it is worth dwelling on this for a bit longer. First of all, what does it mean to be low on a scale? Secondly, is this a presupposition or an implicature? Thirdly, is this really what we find in the cases of optative *only* and ONLY$_2$ that I am analyzing?

To answer the first question, Klinedinst (2005) shows that lowness is a relative concept; there must be a sufficiently high number of salient alternatives that are higher on the scale, as illustrated in (610a) versus (610b).

(610) *Mary is an average student*

a. The average score on the exam was a C. # Mary only got an [A–]$_F$.

b. The average score on the exam was an A. Mary only got an [A–]$_F$.

(Klinedinst 2005)

To answer the second question, Klinedinst (2005) shows that lowness projects from downward entailing contexts, indicating that it is a presupposition and not an implicature. He argues that a speaker who utters (611b-d) invariably presupposes that Cal State is low on a scale (here: a scale that measures the prestige of different universities according to the speaker), as in the baseline example, in (611a). Therefore, lowness must be a presupposition. (These are Klinedinst's examples.)

(611) a. John only got his BA from [Cal State]$_F$.

b. No faculty member here only graduated from [Cal State]$_F$.

c. John doubts that Bill only graduated from [Cal State]$_F$.

d. Did Bill only graduate from [Cal State]$_F$? (I thought he was an excellent student in high school/that his parents were very rich)

(Klinedinst 2005)

To answer the third question, I argue that *only* in optatives (and minimal sufficiency conditionals) fulfills exactly this purpose: To mark that the modified proposition is low on some relevant scale, which seems to correspond to an effort scale or desirability scale – in other words, it is relatively easy to achieve, as compared to salient alternatives. More

concretely, I propose that if I exclaim (612a) or (612b), I always presuppose that (612c) holds in the present context. (See also Biezma 2011ab, who has a similar view.)

(612) a. If only I had a Porsche!

b. If only I had a car!

c. … this is **all** I need to be satisfied, i.e. I need nothing that's **even better** (such as a Porsche with special equipment, etc)

The fact that the denoted proposition must be good enough to satisfy my needs follows from the semantics of the exclamation operator *EX*, repeated in (613).

(613) For any scale *S* and proposition *p*, interpreted in relation to a context *c* and assignment function *g*,

an utterance EX(S)(p) is felicitous iff $\forall q[\text{THRESHOLD}(c) >_S q \rightarrow p >_S q]$

"EX expresses an emotion that captures the fact that *p* is higher on a (speaker-related) scale *S* than all contextually relevant alternatives *q* below a contextual threshold."

*where* THRESHOLD(c) is a function from a context into a set of worlds / a proposition that counts as high with respect to a relevant scale *S*.

Evidence for such a *good enough* requirement stems from the following contrast. If I need a Porsche, I cannot exclaim an optative that settles for less. (Included are the descriptive statistics of a brief survey to establish this contrast.)

(614) Context: I want to attend a famous, lavish ball, where many celebrities show up. It is unfashionable to arrive at the ball in anything less than a Porsche. I don't even have a car. When I look out of the window, I see my neighbor's Porsche. I exclaim the following.

a. Oh, if only I also had a Porsche! ($mean_{1\text{-}5} = 4.39$, sd = 0.78, n = 18)

b.# Oh, if only I also had a car! ($mean_{1\text{-}5} = 3.06$, sd = 1.43, n = 18)

Evidence that *if-only*-optatives in English convey that I do not want more than what I desperately need follows can be construed from the examples in (615) and (616). (615b) is marked due to the fact that a Porsche is more than what I need to be satisfied in the

current context. Similarly, (616b) is marked, as the context is such that $1000 is perfectly satisfactory and a million is much more than what I need.

(615) *Context: I need to get from Boston to Providence as quickly as possible. To do so, I need a car. Unfortunately I do not own a car. My neighbors have a car, but it's a Porsche, so they wouldn't lend it to me. I exclaim the following.*

a. Oh, if only I owned a car! ($mean_{1\text{-}5}$ = 4.46, sd = 0.88, n = 13)
b.# Oh, if only I owned a Porsche! ($mean_{1\text{-}5}$ = 2.54, sd = 1.20, n = 13)

(616) *Context: I want to attend a famous, lavish ball, where many celebrities show up. The admission fee is $1000 and I'm currently broke. On the evening of the ball, I get really frustrated; when I see my neighbors leaving for the ball, I exclaim the following.*

a. Oh, if only I had a thousand dollars! ($mean_{1\text{-}5}$ = 4.31, sd = 0.86, n = 13)
b.# Oh, if only I had a million dollars! ($mean_{1\text{-}5}$ = 2.46, sd = 1.13, n = 13)

Examples like (617) initially appear to challenge the generalization that my analysis captures. However, at closer inspection, they are fully compatible with it. Given human nature, there is always *something better* that we can imagine, and the scalar presupposition of *only* merely needs to hold with respect to a contextually determined set of alternatives.

(617) a. If only I were the richest man in the world! (⇒ I don't want more than that.)
b. If only I were God! (⇒ I don't want more than that.)

To support my analysis, let me briefly review evidence that the availability of an $\text{ONLY}_2$ reading in conditional antecedents is independent from the choice of scale.

First, consider an example of a partially ordered logical entailment scale in (618). As indicated, a minimal sufficiency reading is available here[113].

[113] Naturally, as in English, an $\text{ONLY}_1$ reading is also available, cf. (i).
i. If he's only using his $[\text{right}]_F$ hand, he won't achieve much.

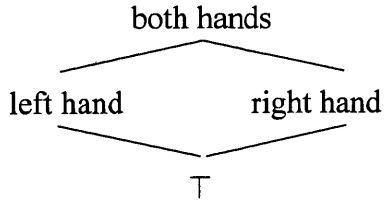
(618) a. *Context: John has dry skin on both of his hands, so he decided not to do the gardening. As the weeds are starting to take over, he decides to do the gardening, but using only his right hand. That's fine, because...*

Wenn er **nur** seine [rechte]$_F$ Hand verwendet, wird er (schon) viel
if he only his right Hand uses will he already much

erreichen.
reach

'If he's only using his right hand, he'll already get a lot done.'

b. *scale:*




c. *paraphrase:* If John uses **at least** his [right] hand, which is easy to achieve, he'll already make a lot of progress.

Similarly, a totally ordered entailment scale allows for a minimal sufficiency reading, illustrated for German[114].

(619) a. *Context: You are planning to tour Italy and you have three days to see Rome. You ask me for advice on where to go. I respond:*

Wenn du **nur** [drei]$_F$ Tage in Rom verbringst, wirst du (schon) viel
if you only three days in Rome spend will you schon much

erleben.
experience

'If you only spend three days in Rome, you'll already experience a lot.'

b. *scale:* ... < two days < three days < four days < five days < ...

c. *paraphrase:* If you spend **at least** [three] days in Rome, which is not much, you'll make a lot of nice experiences.

Finally, consider a case of a pragmatic scale. Once again, a minimal sufficiency reading is available[115].

---

[114] Again, an ONLY$_I$ reading is available as well, cf. (ii).

ii. If you only spend [three]$_F$ days in Italy, you won't see much.

(620) a. *Context: John got his BA from a community college, and he's in doubt whether it will be any good for his future career.*

Wenn er seinen BA **nur** von einem Community College bekommen
if he his BA only from a community college received

hat, wird er (schon) viel erreichen.
has will he schon much achieve

'If he only received his BA from a community college, he'll already achieve a lot.'

b. *scale:* ... < community college < Cal State < UCLA < ...

c. *paraphrase:* If John got his BA **at least** from a [community college], which is easily achieved, he'll already achieve a lot in his life.

We can conclude that the availability of a minimal sufficiency (ONLY$_2$) reading is independent from the choice of scale, i.e. a uniform approach to *only* is possible, which posits both ONLY$_1$ and ONLY$_2$ as separate entries for *only*, independent from the scale that they combine with[116].

### 6.2.4 Why *Only*$_2$ is not *Op* + *Only*$_1$

A predecessor of my ONLY$_2$ is Guerzoni's (2003) *only*$_2$, which was posited to account for German *auch nur* 'even' (lit. 'also only') constructions. A question that arises at this point is whether minimal sufficiency *only* in conditionals is an instance of ONLY$_1$ in the scope of a higher operator. Specifically, there are two construction types that we may suspect to underlie ONLY$_2$ readings, like (621a) – the relevant ONLY$_2$ paraphrase seems equivalent to the meaning that arises from *even* + *only*, as in (621b-d), and to the meaning that arises from *already* + *only*, as in (621e).

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[115] Contrast this with an ONLY$_1$ reading, as given in (i).

i. If John only got his BA from [a community college]$_F$, he'll have a hard time getting into a good PhD program.

[116] It is not clear whether ONLY$_2$ shares the *at least* component of ONLY$_1$ or the *at most* component of ONLY$_1$ in any way. As far as the current empirical scope is concerned, no notion of exclusivity or *exactly* seems to be conveyed by ONLY$_2$.

(621) a. Wenn **nur** zwei Personen einsteigen, wird das Boot sinken.
if only two persons get.in will the boat sink
*lit.* 'If only two persons get into the boat, the boat will sink.'

paraphrase of ONLY$_2$ reading: 'It only takes two people to sink this boat.'

b. **Selbst** wenn **nur** zwei Personen einsteigen, wird das Boot sinken.
even if only two people get.in will the boat sink
'Even if only two persons get into the boat, the boat will sink.'

c. **Sogar** wenn **nur** zwei Personen einsteigen, wird das Boot sinken.
even if only two people get.in will the boat sink
'Even if only two persons get into the boat, the boat will sink.'

d. **Auch** wenn **nur** zwei Personen einsteigen, wird das Boot sinken.
also if only two people get.in will the boat sink
'Even if only two persons get into the boat, the boat will sink.'

e. **Schon** wenn **nur** zwei Personen einsteigen, wird das Boot sinken.
already if only two people get.in will the boat sink
'Even if only two persons get into the boat, the boat will sink.'

The question that needs to be asked is whether ONLY$_2$ constructions always involve some additional null operator (corresponding *even* or *already*), and more specifically, whether ONLY$_2$ readings could compositionally derive from ONLY$_1$ and such a null operator. This would possibly entail that optatives always contain a null operator amounting to *even* or *already*, which would be an important insight into the semantics of optatives. I will address this issue in the present section and argue that there is evidence that ONLY$_2$ readings are not contingent on some additional operator in the clause. While optatives cannot contain an overt *even* or *already* operator, (622)+(623), I argue that they do not contain a covert variant thereof either.

(622) a. Wenn ich **nur** reich wäre!
if I only rich were
'If only I were rich!'

b. #Selbst / #Sogar / #Auch / #Schon wenn ich **nur** reich wäre!
even / even / also / already if I only rich were
'#Even / Already if only I were rich!'

(623) a. If only I were rich!

b.# Even if only I were rich!

### 6.2.4.1 Why *Only*$_2$ is not *Even* + *Only*$_1$

In this section, I will explore the *even-if-only* hypothesis, which can be stated as follows: Minimal sufficiency conditionals contain canonical *only* (my ONLY$_1$ above) in the scope of a covert *even* type operator. By extension, the *even-if-only* hypothesis posits that optatives with *only*, which I have argued to share properties of minimal sufficiency conditionals, contain canonical *only* in the scope of a covert *even* type operator. This may entail that all optatives contain a covert *even* type operator.

Initial motivation for such an approach stems from the fact that ONLY$_2$ type readings can be emulated in English (which does not have a designated ONLY$_2$ use of *only*) by placing canonical *only* (ONLY$_1$) into the scope of *even*. This is illustrated in (624). Example (624a) without *even* does not allow for a minimal sufficiency reading in English (as opposed to other languages such as German), whereas (624b) with an overt *even* does allow for a minimal sufficiency reading. So, the question is whether the apparent existence of ONLY$_2$ in German-type languages is an artifact of placing ONLY$_1$ into the scope of EVEN.

(624) a. If only two people get into this boat, it will sink.
✓ 'If less than three people get into this boat, it will sink.'
# 'If at least two people get into this boat, it will sink.'

b. Even if only two people get into this boat, it will sink.
✓ 'If at least two people get into this boat, it will sink.' (≈ ONLY$_2$)

To proceed, I first briefly review a recent analysis of *even-if*-conditionals (see Rawlins 2008 and references therein), namely Guerzoni & Lim (2007). I then show that neither minimal sufficiency conditionals nor optatives seem to be lend themselves to an analysis as *even-if*-conditionals.

Guerzoni & Lim (2007) focus on Pollock's (1976) observation that there are two types of *even-if*-conditionals, as given in (625). So-called 'introduced-if' conditionals,

like (625a), imply the truth of their consequent, whereas so-called 'standing-if' conditionals, like (625b) do not.

(625) a. Even if the bridge were standing I wouldn't cross. 'introduced-if'

b. Even if John drank [$_F$ one ounce] of whiskey she would fire him. 'standing-if'

(Guerzoni & Lim 2007, from Bennett 1982)

Guerzoni & Lim construct a more minimal pair, which is given in (626).

(626) a. Even if his relatives visit, he will feel miserable 'introduced-if'

(✓let alone if they don't, #but if they don't he'll be happy)

⇒ He will feel miserable no matter what.

b. Even if ONE of his relatives visits, he will feel miserable 'standing-if'

(#let alone if they don't, ✓but if they don't he'll be happy)

⇏ He will feel miserable no matter what.

(Guerzoni & Lim 2007:fn.1)

It can be shown easily that the minimal sufficiency construction that we are interested in falls into the 'standing-if' category, as it does not imply the truth of the consequent; example (627a) can be successfully followed up by (627b) (and not by (627c)).

(627) a. Even if only two people get into this boat, it will sink.

b. … ✓but, of course, if only one person gets into this boat, it will stay afloat

c. … # let alone if they don't.

⇏ The boat will sink no matter what.

Example (628b) makes an analogous point for minimal sufficiency conditionals without *even*.

(628) a. Wenn **nur** zwei Personen einsteigen, wird das Boot sinken.
if only two persons get.in will the boat sink
*lit.* 'If only two persons get into the boat, the boat will sink.'

paraphrase of ONLY$_2$ reading: 'It only takes two people to sink this boat.'

b. … also darf nur eine Person einsteigen.
so may only one person get.in
'Therefore, only one person may get in.'
$\not\Rightarrow$ The boat will sink no matter what.

We have thus learned that we should compare ONLY$_2$ constructions and *only*-optatives to 'standing-if' conditionals (which do not imply the truth of the consequent), and we can henceforth disregard 'introduced-if' conditionals (which do imply the truth of the consequent). We observe, in accordance with what Guerzoni & Lim observe for 'standing-if' conditionals, that the implicature of minimal sufficiency constructions is that *any* number of people higher than two will cause the boat to sink in (627)+(628), i.e. *only two* is the smallest amount of people that will suffice to sink the boat.

On the theoretical side of things, Guerzoni & Lim argue that 'introduced-if' conditionals involve verum focus, whereas 'standing-if' conditionals involve focus on an overt focus constituent. We will thus be concerned with the latter. Guerzoni & Lim's analysis of *even* assumes that it is a propositional operator, which quantifies over focus alternatives (following Rooth 1985, 1996); furthermore, *even* is truth-conditionally vacuous and merely introduces two presuppositions, one of which is scalar, and one of which is additive. The meaning of *even*, (629), is illustrated in (630).

(629) ||even||(C)(p)(w) is defined iff
$\exists q \in C\ [q \neq p \ \&\ q(w) = 1]\ \&$ ADDITIVITY
"**Presupposition 1:** There is another true focus alternative."
$\forall q \in C\ [q \neq p \rightarrow p <_{likely/expected}\ q]$ SCALARITY
"**Presupposition 2:** The modified proposition is the most unlikely alternative."
If defined, then ||even||(C)(p)(w) = P(w) ASSERTION
"**Truth Conditional Content:** *even* is truth-conditionally vacuous."
(Guerzoni & Lim 2007, paraphrases are mine)

(630) a. Gil invited even [$_F$ Mac].
b. **Assertion:** Gil invited Mac.

c. **Scalar Presupposition:** Mac was the least likely (most noteworthy) person among the contextually salient people for Gil to invite.

d. **Existential Presupposition:** Gil invited at least one contextually salient person other than Mac.

(Guerzoni & Lim 2007)

Guerzoni & Lim assume, following Lycan (1991, 2001), that *even* takes scope over the entire conditional. This is supported for German by the observation that *even* type elements must be left-peripheral (whereas *already*, which I discuss in the next section, can be medial in the matrix clause). Consider first three equivalents of English *even* in (631a), (632a) and (633a). As indicated, *sogar* 'even' in (631b) and *selbst* 'even' in (632b) cannot be placed clause-medially in the matrix clause. Example (633) with additive *auch* 'even' is less clear, though, as indicated, it is not evident that (633b) and (633a) are equivalent as they stand.

(631) a. **Sogar** wenn **nur** zwei Personen einsteigen, wird das Boot sinken.
even if only two persons get.in will the boat sink

'Even if only two people get in, the boat will sink.'

b.#Wenn **nur** zwei Personen einsteigen, wird das Boot **sogar** sinken.
if only two persons get.in will the boat even sink

(632) a. **Selbst** wenn **nur** zwei Personen einsteigen, wird das Boot sinken.
self if only two persons get.in will the boat sink

'Even if only two people get in, the boat will sink.'

b.#Wenn **nur** zwei Personen einsteigen, wird das Boot **selbst** sinken.
if only two persons get.in will the boat self sink

(633) a. **Auch** wenn **nur** zwei Personen einsteigen, wird das Boot sinken.
also if only two persons get.in will the boat sink

'Even if only two people get in, the boat will sink.'

b.?#Wenn **nur** zwei Personen einsteigen, wird das Boot **auch** sinken.
if only two persons get.in will the boat also sink

In sharp contrast, (634b) and (634a) are roughly equivalent; I will discuss these in the next section.

(634) a. **Schon** wenn **nur** zwei Personen einsteigen, wird das Boot sinken.
already if only two persons get.in will the boat sink
'Already if only two people get in, the boat will sink.'

b. Wenn **nur** zwei Personen einsteigen, wird das Boot **schon** sinken.
if only two persons get.in will the boat already sink
'If only two people get in, the boat will already sink.'

Having thus corroborated Guerzoni & Lim's view that *even* takes scope over the entire conditional, we can look at the next step in their analysis. Guerzoni & Lim assume that *even-if*-conditionals of the type that interest us exhibit focus on the number word (a degree expression in their analysis). They derive the following analysis. First, the focus alternatives in (635b) are generated, and then the meaning of *even* in (629) is applied, as in (636).

(635) a. Even if John drank [$_F$ one ounce] of whiskey she would fire him.

b. *focus alternatives:*

{that if John drank **one ounce** of whiskey she would fire him,
that if John drank **one and half ounce** of whiskey she would fire him,
that if John drank **two ounces** of whiskey she would fire him
that if John drank **a pint** of whiskey she would fire him,...}

(slightly adapted from Guerzoni & Lim 2007, emphasis mine)

(636) a. **Assertion:** If he drank one ounce of whiskey she would fire him.

b. **Existential Presupposition:**

$\exists q$ [$q \in$ (635b) & $q \neq$ {if John drank one ounce of whiskey she would fire him} & $q(w) = 1$]

c. **Scalar Presupposition:**

It is less likely that she would fire John if he drank one ounce of whiskey than if he drank any other amount of whiskey.

(slightly adapted from Guerzoni & Lim 2007, emphasis mine)

Let us see how this translates to *even-if*-conditionals that contain *only*. Can we assume that both *even* and *only* co-associate with focus on 'two' in (637a) and thus derive the fact that (637a) seems equivalent to (637b)? As it stands, Guerzoni & Lim's (2007) proposal requires the focused numeral to be the lowest element on the scale, which is clearly not given in (637a). In their footnote 11, they suggest that in cases like (638) *even* associates with focus on *exactly/only* and generates focus alternatives based on elements of a semantically similar type.

(637) a. Even if only $[\text{two}]_F$ people get into this boat, it will sink.
b. If at least $[\text{two}]_F$ people get into this boat, it will sink.

(638) Even if John drinks exactly/only one ounce of whiskey she would fire him. (Guerzoni & Lim 2007)

For the sake of the argument, let us assume that this is right, and use *not more than* as a logical equivalent for *only* (an intended simplification). We then generate the focus alternatives in (639), and by virtue of (629), generate the meaning in (640) for (637a).

(639) {that if **no more than** two people get into this boat, it will sink,
that if **more than** two people get into this boat, it will sink}

(640) a. **Assertion:** If no more than $[\text{two}]_F$ people get into this boat, it will sink.
b. **Existential Presupposition:**
$\exists q\ [q \in (640b)\ \&\ q \neq \{$if no more than two people get into this boat, it will sink$\}\ \&\ q(w) = 1]$
c. **Scalar Presupposition:**
It is less likely that the boat will sink if less than three people (= no more than two) get in than if at least three people (= more than two) get in.

Clearly, the analysis in (640) does not quite capture the meaning of (637a), under which it is equivalent to (637b). However, I assume that the meaning of (637a), paraphrased in (637b) is derived from (640) by virtue of a scalar implicature, as sketched in (641).

(641) If no more than $[\text{two}]_F$ people get into this boat, it will sink.
$\Rightarrow_{\text{implicates}}$ If at least $[\text{two}]_F$ people get into this boat, it will sink.

Such a scalar implicature follows from scale reversal in the antecedents of conditionals (cf. von Fintel 1999, as discussed by Guerzoni & Lim 2007); (642a) entails (642b) – therefore, for the speaker to state (642b) instead of (642a) gives rise to a standard scalar implicature that (642a) is false, deriving (641).

(642) a. If less than two people get into this boat, it will sink.
b. $\Rightarrow$ If less than three people get into this boat, it will sink.

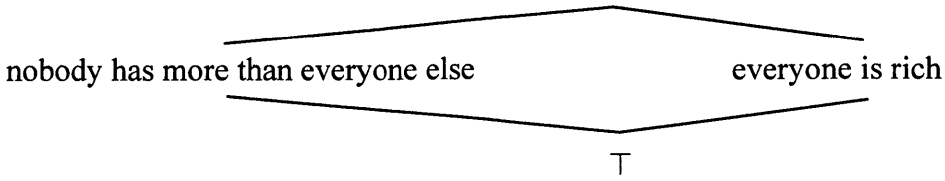
This seems to approximate the right result for English *even-if-only* conditionals. I will not be concerned with a refinement of this analysis, as I now wish to evaluate whether this is the right analysis for $\text{ONLY}_2$ readings without *even*, and for *only*-optatives.

The core argument against an *even-if-only* approach to $\text{ONLY}_2$ and optative *only* stems from the following observation. The possible scope and focus of canonical *only* and optative *only* differs as follows. While optative *only* can combine with broad sentential focus, (643a), canonical *only* is more constrained, as shown in (643b). It is plausible that *only* in (643a) uses a pragmatic scale or a partially ordered entailment scale, as in (643c), where all contextually salient propositions are relevant alternatives. While we do not currently understand why canonical *only* cannot combine with the scale in (643c)[117], it is evident from the ill-formedness of (643b) that such a constraint holds.

(643) a. If only nobody had more than everyone else!
b.# Only nobody has more than everyone else.

[117] The inability of $\text{ONLY}_1$ to combine with such a scale may be due to its exclusive component, though it is not clear how we can derive this.

c. nobody has more than everyone else + everyone is rich




Moving on to languages that employ ONLY$_2$, we have seen that ONLY$_2$ can also combine with sentential focus, shown in (644a); crucially, *even-if-only* constructions disallow for this, (644b-d), which indicates that they employ ONLY$_1$, and corroborates that ONLY$_2$ does indeed exist separately from ONLY$_1$.

(644) a. Wenn **nur** keiner mehr hat als die anderen, sind sie zufrieden.
if only nobody more has than the others are they content
'If only nobody has more than the others, they are content.'

b.* **Selbst** wenn **nur** keiner mehr hat als die anderen, sind sie zufrieden.
even if only nobody more has than the others are they content
'Even if only nobody has more than the others, they are content.'

c.* **Sogar** wenn **nur** keiner mehr hat als die anderen, sind sie zufrieden.
even if only nobody more has than the others are they content
'Even if only nobody has more than the others, they are content.'

d.* **Auch** wenn **nur** keiner mehr hat als die anderen, sind sie zufrieden.
also if only nobody more has than the others are they content
'Even if only nobody has more than the others, they are content.'

Notably, this argument carries over to English. If a combination of *even* and canonical *only* gave rise to a true ONLY$_2$ reading, as observed in (644a) (and presumably in the optative in (645a)), then (645b) should be grammatical, contrary to fact.

(645) a. If only nobody had more than everyone else!

b.* Even if only nobody had more than everyone else, people would be content.

These observations support a view where ONLY$_2$ does exist as a separate element, whereas *even* + *only* configurations may always involve ONLY$_1$ - illustrated in (646).

(646) a. Wenn **nur** zwei Personen einsteigen, wird das Boot sinken.
if ONLY$_2$ two persons get.in will the boat sink
'It only takes two people to sink this boat.' (*lit.* 'If only two people get in ...')

b. **Selbst/Sogar/Auch** wenn **nur** zwei Personen einsteigen, wird es sinken.
even even also if ONLY$_1$ two people get.in will it sink
'Even if only two persons get into the boat, the boat will sink.'

In turn, these data support a view where there is no covert *even* type operator in minimal sufficiency conditionals or optatives. In the following section, I will turn to a more serious concern, which amounts to a second type of reductionist approach: Could it be that ONLY$_2$ readings derive from a combination of ONLY$_1$ and 'marginality *already*'?

#### 6.2.4.2 Why *Only*$_2$ may not be *Already* + *Only*$_1$

In the preceding section, we have seen that there are good arguments against treating ONLY$_2$ as a compositional result of combining ONLY$_1$ and EVEN. The core argument was based on the fact that ONLY$_2$ can combine with wide sentential focus, (647a), whereas ONLY$_1$, which plausibly co-occurs with *even* type elements shows restrictions on doing so, (647b), especially in combination with *even*. What we see in (647c) is that clauses with *schon* 'already' and minimal sufficiency *only* are however well-formed; (647c) and (647d) are roughly equivalent. The questions that emerge can be stated as follows. First, what is the semantics of *schon* 'already' in such minimal sufficiency conditionals? Second, could it be that apparent ONLY$_2$ readings are a consequence of placing ONLY$_1$ in a conditional that also contains *already*? Third, could it be that (647a) (and optatives clauses with *only*) contains a covert *already* combined with canonical ONLY$_1$? As I show below, this concern is much more serious than the concern raised in the preceding section.

(647) a. Wenn **nur** keiner mehr hat, sind sie zufrieden.
if only nobody more has are they content
'If only nobody has more, they are content.'

b.* **Selbst / Sogar / Auch** wenn **nur** keiner mehr hat, sind sie zufrieden.
even even also if only nobody more has are they content
'Even if only nobody has more, they are content.'

c. **Schon** wenn **nur** keiner mehr hat, sind sie zufrieden.
already if only nobody more has are they content
'Already if only nobody has more, they are content.'

d. Wenn **nur** keiner mehr hat, sind sie **schon** zufrieden.
if only nobody more has are they already content
'If only nobody has more, they are already content.'

As we have seen above, *schon* 'already' is nearly always possible in minimal sufficiency conditionals. I will now review evidence that suggest that *schon* 'already' may be an obligatory component in minimal sufficiency conditionals (either overtly or covertly) and raise some issues for drawing this conclusion. The next section will then discuss the meaning of *schon* 'already' and how we can make sense of the patterns that we observe herein.

First of all, strong evidence that minimal sufficiency *only* may always involve *already* stems from cases of minimal sufficiency conditionals in which *schon* 'already' is indeed obligatory, (648). Interestingly, these are cases where the minimal sufficiency *if-only*-clause is right-peripheral. So, if there are cases where *schon* 'already' is obligatory for a minimal sufficiency reading, should we conclude that minimal sufficiency *only* always combines with a (possibly covert) *already*?

(648) a. Ich freue mich ?#(**schon**), [wenn mir **nur** jemand sagt, dass er mich mag].
I please me schon if me only someone says that he me likes
'I'm already happy if only someone tells me that he likes me.'

MSC reading ≈ I'm already happy if someone tells me that he likes me, which is not much to ask for.

b. Es ist ?#(**schon**) schlecht, [wenn es **nur** ein paar Minuten regnet].
it is schon bad if it only a few minutes rains
'It's already bad if it only rains for a few minutes.'

MSC reading ≈ It's already bad if it rains briefly, which happens quite easily.

c. Es hätte mich ?#(**schon**) gefreut, [wenn du mir **nur** einen Brief
it had me schon pleased if you me only a letter
geschrieben hättest].
written had
'It would already have made me happy if you had only written me one letter.'
MSC reading ≈ It would have already made me happy if you had written me one letter, which is not much to ask for.

I would like to challenge such a conclusion with two pieces of evidence. First, the facts in (648) are counterbalanced by the observation that minimal sufficiency conditionals allow for conditional inversion, but disallow it in the scope of *schon* 'already', so not all ONLY$_2$-containing conditionals allow for overt *schon* 'already' to be in a position above ONLY$_2$. Example (649) shows the baseline examples without conditional inversion; (650) shows that minimal sufficiency *only* is possible in a V1-antecedent with *schon* 'already' medial to the matrix clause, (650a), but not with *schon* 'already' clause-initial, (650b). (We cannot test these cases for right-peripheral antecedents, as these are marked in such constructions, cf. Reis & Wöllstein 2010.) If minimal sufficiency *only* always emerged as an occurrence of ONLY$_1$ in the scope of *already*, the unacceptability of (650b) should be puzzling. There is no evident reason why (650a) and (650b) should not be equivalent (in the same way in which (649a) and (649b) are equivalent).

(649) a. **Wenn** er mich **nur** angerufen **hätte**, wäre ich **schon** zufrieden.
if he me only called had were I already content
'If he had only called me, I would already be content.'

b. **Schon wenn** er mich **nur** angerufen **hätte**, wäre ich zufrieden.
already if he me only called had were I content
'Already if he had only called me, I would be content.'

(650) a. **Hätte** er mich **nur** angerufen, wäre ich **schon** zufrieden.
had he me only called were I already content
'Had he only called me, I would already be content.'

b. ?***Schon hätte** er mich **nur** angerufen, wäre ich zufrieden.
already had he me only called were I content
'Already had he only called me, I would be content.'

A second piece of evidence against the strong hypothesis that minimal sufficiency conditionals always involve *schon* 'already' stems from examples such as (651).[118] While (651) clearly contains minimal sufficiency *nur* 'only', *schon* 'already' seems impossible in any of the conceivable positions.

(651) es sind (#**schon**) gerade die unterschiedlichen meinungen, die hier
it are schon exactly the differing opinions that here
(#**schon**) den reiz des diskutierens ausmachten, (#**schon**) [wenn **nur**
schon the appeal of.the discussing created schon if only
jeder jedem seine meinung gelassen hat, ohne persönlich
everyone to.everyone his opinion left has without personally
zu werden].
to become
'It was the differing opinions themselves that made discussions interesting here, [if only everyone allowed everyone else to have a different opinion without making it personal].'

We can thus conclude that there is evidence that *schon* 'already' may be obligatory (overtly or covertly) in minimal sufficiency conditionals, but there is also evidence against such a view.

Let us consider another piece of evidence. We notice that minimal sufficiency readings can be made available in Portuguese, a non-ONLY$_2$ language, by means of inserting *ja* 'already'.

(652) a. Se **só/apenas** duas pessoas entrarem neste barco, ele vai afundar. *Port.*
if only two people enter in-this boat he will sink
*lit.* 'If only two people get on the boat, the boat will sink.'
✓ *The boat will sink if **less than three persons** get in.*
* *The boat will sink if **more than one person** get in.*

b. Se **só/apenas** duas pessoas entrarem nesse barco, ele **já** afunda.
if only two people enter in-this boat he already sinks
*lit.* 'If only two people get on the boat, the boat will sink.'
✓ *The boat will sink if **more than one person** get in.*

[118] This is a modification of a naturally occurring online post on www.heute.de, from 1/10/2009.

This is a striking observation, which may suggest that ONLY$_2$ is a result of combining ONLY$_1$ with *already*. However, if we look past Portuguese, there is good evidence against drawing such a conclusion. First of all, in Spanish, *ya* 'already' barely improves the relevant construction, (653).

(653) *Spanish*

a. Si **solo** dos personas se montan en esa barca, se hundira
if only two people self get on that boat self will.sink
*lit.* 'If only two people get on the boat, the boat will sink.' (✓ONLY$_1$ / *ONLY$_2$)

b. ?? Si **solo** dos personas se montan en esa barca, **ya** se hundira
if only two people self get on that boat already self will.sink
*lit.* 'If only two people get on the boat, the boat will already sink.' (??ONLY$_2$)

In Greek, *idhi* 'already' requires a change in tense and aspect and only yields a slight improvement as well, (654).

(654) *Greek*

a. An **mono** dhio anthropi anevun s'afto to plio, tha vuliaksi.
if only two people enter on-this the boat fut sink
*lit.* 'If only two people get on the boat, the boat will sink.' (✓ONLY$_1$ / *ONLY$_2$)

b. ?? An **mono** dhio anthropi anevenan, to plio iche **idhi** vuliaksi
if only two people got-on(impf), the ship had already sunk
*lit.* 'If only two people got on the boat, the boat had already sunk.' (??ONLY$_2$)

Finally, in Catalan, *ja* 'already' does not improve the respective construction at all, (655).

(655) *Catalan*

a. Si **només** pugen dues persones en aquesta bàrca, s'enfonsarà.
if only get.in two people on that boat self.will.sink
*lit.* 'If only two people get on the boat, the boat will sink.' (✓ONLY$_1$ / *ONLY$_2$)

b. ?* Si **només** pugen dues persones en aquesta barca, **ja** s'enfonsarà.
if only get.in two people on that boat already self.will.sink
*lit.* 'If only two people get on the boat, the boat will already sink.' (*ONLY$_2$)

This suggests that Portuguese *ja* 'already' may have a special status of containing an *even* component that Spanish *ya* 'already', Greek *idhi* 'already' and Catalan *ja* 'already' lack.

A language that seems to behave like Portuguese may be Czech, even though it is an ONLY$_2$ language. What is interesting about Czech is that different complementizers license minimal sufficiency *only* to a different extent. While *kdyby* 'if(subj)' is perfectly fine with ONLY$_2$, *jestli* 'if' disallows this reading, and *když* 'if' / *pokud* 'if' only marginally allow for it.

(656) *Czech*

a. Kdy-by **jen** dva lidi nasedli na tuto lod', potopila by se.
if-subj only two people get(pptc) on this boat sink(pptc) subj self
*lit.* 'If only two people got into this boat, it would sink.' ✓ONLY$_1$ / ✓ONLY$_2$

b. Jestli **jen** dva lidi nasednou na tuto lod', potopí se.
if only two people get(prpf) on this boat sink(prpf) self
*lit.* 'If only two people get into this boat, it will sink.' ✓ONLY$_1$ / *ONLY$_2$

c. Když **jen** dva lidi nasednou na tuto lod', potopí se.
if only two people get(prpf) on this boat sink(prpf) self
*lit.* 'If only two people get into this boat, it will sink.' ✓ONLY$_1$ / ??ONLY$_2$

d. Pokud **jen** dva lidi nasednou na tuto lod', potopí se.
if only two people get(prpf) on this boat sink(prpf) self
*lit.* 'If only two people get into this boat, it will sink.' ✓ONLY$_1$ / ?ONLY$_2$

This contrast completely disappears if we insert *už* 'already', which uniformly makes available an ONLY$_2$ reading. This suggests that 'already' can sometimes give rise to an ONLY$_2$ reading that would not otherwise be available. At the same time we can only explain the contrasts in (656) and lack thereof in (657) if we assume that (656a) contains *true* ONLY$_2$, whereas (657b-d) are instances of ONLY$_1$, where *already* has coerced an ONLY$_2$-like reading.

(657) *Czech*

a. Kdy-by **jen** dva lidi nasedli na tuto lod', **už** by se potopila.
if-subj only two people get(pptc) on this boat already subj self sink(pptc)
*lit.* 'If only two people got into this boat, it would sink.' #ONLY$_1$ / ✓ONLY$_2$

b. Jestli **jen** dva lidi nasednou na tuto lod', **už** se potopí.
if only two people get(prpf) on this boat already self sink(prpf)
*lit.* 'If only two people get into this boat, it will sink.' #ONLY$_1$ / ✓ONLY$_2$

c. Když **jen** dva lidi nasednou na tuto lod', **už** se potopí.
if only two people get(prpf) on this boat already self sink(prpf)
*lit.* 'If only two people get into this boat, it will sink.' #ONLY$_1$ / ✓ONLY$_2$

d. Pokud **jen** dva lidi nasednou na tuto lod', **už** se potopí.
if only two people get(prpf) on this boat already self sink(prpf)
*lit.* 'If only two people get into this boat, it will sink.' #ONLY$_1$ / ✓ONLY$_2$

Further evidence against decomposing ONLY$_2$ into ONLY$_1$ + ALREADY stems from exclusive paraphrases. The examples in (658) and (659), which employ a negative, exclusive paraphrase suggest that adding *schon* 'already' barely brings improvement, different from what we might expect if ONLY$_2$ compositionally arises from placing an exclusive in the scope of *already*.

(658) *Maximally one person can get into the boat*

a.# Wenn **nicht mehr als** zwei Personen einsteigen, wird das Boot sinken.
if not more than two persons get.in will the boat sink
'If no more than two persons get into the boat, the boat will sink.'

⇒ *only reading:* 'To stay afloat, more than two persons must get in.'

b.?? Wenn **nicht mehr als** zwei Personen einsteigen, wird das Boot **schon** sinken.
if not more than two persons get.in will the boat already sink
'If no more than two persons get into the boat, the boat will already sink.'

(659) *Maximally one person can get into the boat*

a.# Wenn **weniger als** drei Personen einsteigen, wird das Boot sinken.
if less than three persons get.in will the boat sink
'If less than three persons get into the boat, the boat will sink.'

⇒ *only reading:* 'To stay afloat, more than two persons must get in.'

b.?? Wenn **weniger als** drei Personen einsteigen, wird das Boot **schon**
if less than three persons get.in will the boat already
sinken.
sink
'If less than three persons get into the boat, the boat will already sink.'

In sum, we have seen good reasons to assume that *schon* 'already' plays a substantial role in minimal sufficiency constructions even though it does not need to be made overt. At the same time, we have seen that it would be premature to conclude that *schon* 'already' is obligatory in minimal sufficiency constructions, and in fact I argued that ONLY$_2$ readings are available without 'already'. The core question that arises can be posited as follows. How do we account for the observed interactions between ONLY$_2$ readings and the presence of *schon* 'already'? The following section discusses the meaning of *schon* 'already' and provides an analysis that accounts for its interaction with ONLY$_2$.

#### 6.2.4.3 Understanding the interactions of *Only*$_2$ and *Already*

This section addresses the question of how we can understand the interactions of *only* and *already* in minimal sufficiency constructions. I will first discuss the meaning of *already* and then focus on its contribution to minimal sufficiency constructions.

Much of the literature on *already* (and its counterpart *still*) focus on temporal readings, (660), and local readings, (661) (Löbner 1989, 1999, Mittwoch 1993, Van der Auwera 1993, Michaelis 1996, Krifka 2000, Greenberg 2009).

(660) *temporal still/already*
a. At 5AM, Sam was **still** sleeping.
b. At 5AM, Annie was **already** awake.

(661) *local still/already*
a. Ventimiglia is **still** in Italy
b. Menton is **already** in France.

However, the use of *already* (and possibly *still*) in minimal sufficiency conditionals seems to fall in the category of 'marginality *already/still*' (König 1977, Michaelis 1993, Ippolito 2007), (662)+(663). This is the construction I will be focusing on.

(662) *marginality still/already*

a. A: Tell me about sedans, compact and subcompact cars. Are they safe?
   B: Well, sedans are definitely safe. Compact cars are **still** safe.
   Subcompacts start to get dangerous.
   (Ippolito 2007:21, emphasis mine)

b. A: Tell me about compact and subcompact cars. Are they safe?
   B: Compact cars are safe. Subcompacts are **already** dangerous.
   (Ippolito 2007:23, emphasis mine)

(663) *marginality still/already*

Paul ist **noch** gemäßigt. Peter ist **schon** radikal.
Paul is still moderate Peter is already radical
'Paul is **still** moderate. Peter is **already** radical.'
(König 1977:183)

What unifies the three uses of *still* and *already* is their scalarity; these particles always serve to localize the modified proposition with respect to (a threshold on) some salient scale. Furthermore, in all three uses, the particles indicate proximity to a threshold on that scale (e.g. the point of waking up, the point of crossing the border, the standard for what it means to be radical). They differ in their choice of scale. Temporal *still/already* make reference to time intervals, local *still/already* make reference to distance on some local axis, marginality *still/already* make reference to a threshold on a qualitative scale (i.e. how *safe/dangerous* does a car have to be to count as *safe/dangerous*? How *moderate/ radical* does a person have to be to count as *moderate/radical*?)

Focusing on English *even-if* conditionals, which emulate minimal sufficiency conditionals, the constructed examples in (664) approximate the kind of construction we are interested in. How can we understand these constructions?

(664) a. Even if only two people enter this boat, it will **already** sink.

b. Even if you only donate one dollar, you're **already** helping us.

First of all, it is worth pointing out that such clauses are not the same type of clauses as the *even-if* clauses that Barker (1991) and Ippolito (2007) study.

(665) a. Even if Bill pays me $200, I'm **still** not going to do it.

b. Even if he had studied, he would **still** have failed.
(Barker 1991: 23,29)

As shown in (666), the latter type of *even-if* clause fall into the 'introduced-if' category (where the consequent is entailed), (666a), and not into the 'standing-if' category (where the consequent is not entailed, cf. Guerzoni & Lim 2007), (666b). Therefore, trying to posit a connection there would be a red herring.

(666) a. Even if Bill pays me $200, I'm **still** not going to do it.
(✓let alone if he doesn't, #but if he doesn't, I will)
⇒ I'm not going to do it no matter what.

b. Even if you only donate one dollar, you're **already / still** helping us.
(#let alone if you don't, ✓but if you don't, you're not)
~~⇏~~ You're helping us no matter what.

As we know that *already/still* are scalar elements, what scale is involved in minimal sufficiency conditionals? The scale that seems to be involved whenever *still/already* occur in conditionals of the type that interests us is a scale of *sufficiency*, as illustrated by means of the paraphrases in (667). As it is not evident that the behavior of *already* distinguishes between simple unmarked conditionals and *even-if-only* conditionals, I will look at both in the following examples.

(667) a. (Even) if (only) **ten** people enter this boat, it will **already sink**.

≡ An amount of **ten** people is **already enough** to sink this boat.

b. If **nine** people enter this boat, it will **still stay afloat**.

≡ An amount of **nine** people is **still not enough** to sink this boat.

Let us now try to understand how to best analyze such constructions.

What we know about marginality *still* and *already* can be loosely summarized as follows. First of all, under their marginality reading, *x is still P* and *x is already P* convey that *x* has the property *P*, but that *x* is close to the threshold of not having the property. The standard view that temporal, local and marginality uses of *still/already* are truth-conditionally vacuous presupposition triggers is supported by the entailments in (668) and (669).

(668) a. Paul is **already** radical. *entails* Paul is radical.

b. Paul is **still** radical. *entails* Paul is radical.

(669) a. (Even) if (only) ten people enter, this boat will **already** sink.

*entails* An amount of ten passengers is sufficient to sink this boat.

b. If ten people enter, this boat will **still** sink.

*entails* An amount of ten passengers is sufficient to sink this boat.

Second, *still* and *already* differ in their perspective; *still* is appropriate when it is under discussion whether *x is P*, (670b)+(671b), whereas *already* is appropriate when it is under discussion whether *x is not P*, (670a)+(671a).

(670) a. Peter is **still moderate**. Paul is **already radical**. ⇒ focus on *being moderate*

*cf.* ? Peter is **very radical**. Paul is **already radical**.

b. Paul is **very radical**. Paul is **still radical**. ⇒ focus on *being radical*

*cf.* ? Peter is **still moderate**. Paul is **still radical**.

(671) a. If nine people enter, this boat will **not yet** sink, but if ten people enter, this boat will **already** sink.

*cf.* ? If twenty people enter, this boat will **definitely** sink. If ten people enter, this boat will **already** sink.

b. If twenty people enter, this boat will **definitely** sink. If ten people enter, this boat will **still** sink.

*cf.* ? If nine people enter, this boat will **not yet** sink, but if ten people enter, this boat will **still** sink.

Third, there are good reasons to view all instances of *still* as duals of *already* (cf. (672)+(673)), i.e. whichever analysis we devise for *still* should also entail an analysis for *already* (Loebner 1989, 1999; against Mittwoch 1993, Van der Auwera 1993).

(672) a. *still p* ≡ ¬*already* ¬*p*

Peter is **still moderate.** ≡ It is **not** the case that Peter is **already radical.**

b. *already p* ≡ ¬*still* ¬*p*

Paul is **already radical.** ≡ It is **not** the case that Paul is **still moderate.**

(673) a. (Even) if (only) ten people enter, this boat will **already sink.**

≡ It is **not** the case that if ten people enter, this boat will **still stay afloat.**

b. If ten people enter, this boat will **still** sink.

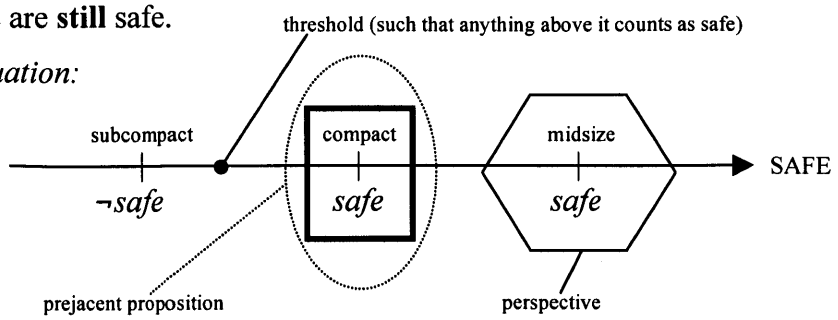
≡ It is **not** the case that if <u>as little as</u> ten people enter, this boat will **already stay afloat.**

So, how should we analyze these occurrences of *still/already* and how do they interact with the semantics of minimal sufficiency conditionals?

My analysis develops ideas from Michaelis (1993) and Ippolito (2007). Consider first a simple case of marginality *still/already*. What an analysis needs to account for are two meaning components: *marginality* (i.e. closeness to a threshold) and *perspective* (i.e. the whether we are interested in whether something is the case or not).

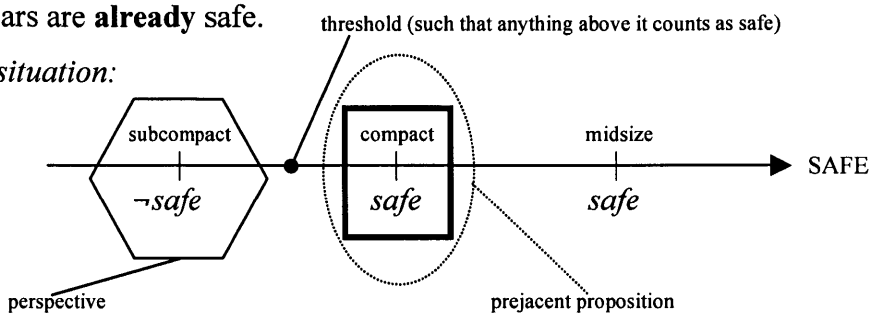
(674) a. Compact cars are **still** safe.

b. *described situation:*




(675) a. Compact cars are **already** safe.

b. *described situation:*




In brief, the insight from König (1977), Michaelis (1993) and Ippolito (2007) is that marginality *still/already* are presupposition triggers that give rise to an additive presupposition, (676b-i) and (676c-i), and a marginality presupposition, (676b-ii) and (676c-ii).

(676) a. If defined, $||\textbf{still } \varphi||^{c,g} = ||\textbf{already } \varphi||^{c,g} = ||\varphi||^{c,g}$

b. $||\textbf{still } \varphi||^{c,g}$ is defined iff

**(i.)** there is a salient alternative $\psi$ that has the same property (e.g. being moderate, being safe, …) ADDITIVITY

**(ii.)** on a salient scale (e.g. political moderation, safeness, …), $\varphi$ is close to the contextual threshold. MARGINALITY

c. $||\textbf{already } \varphi||^{c,g}$ defined iff

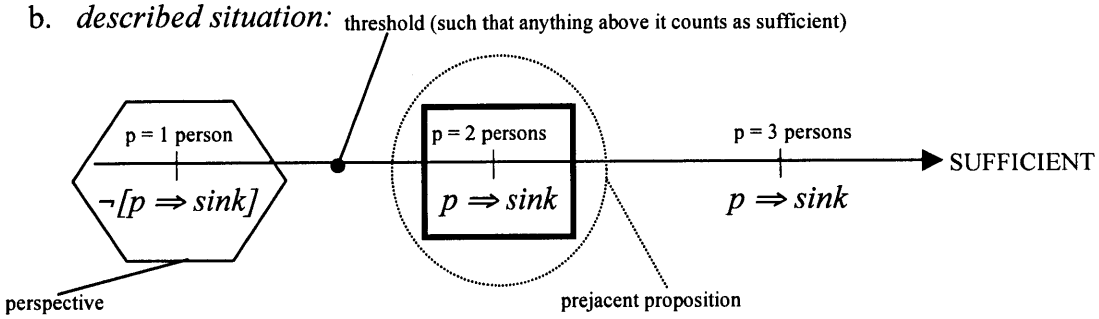
**(i.)** there is a salient alternative $\psi$ that has the opposite property (e.g. moderate ↔ radical, safe ↔ dangerous, …) ADDITIVITY

**(ii.)** on a salient scale (e.g. political moderation, safeness, …), $\varphi$ is close to the contextual threshold. MARGINALITY

As our main focus is on *already* (and not on *still*), I will now focus exclusively on *already* in minimal sufficiency conditionals, narrowing the scope of discussion a bit. Consider (677); if we assume that an antecedent proposition of *only two people get in* is equivalent to *exactly two people get in*, we can write possible alternatives of the antecedent proposition as $p$ = *n persons* (for $p$ = *exactly two persons get in*). What seems to be relevant for *schon* 'already' is whether the antecedent is sufficient for the consequent in the standard conditional sense. ($p \Rightarrow$ *sink* is an abbreviation for the standard truth-condition of a conditional, i.e. in all closest p-worlds, the boat is sinking.)

(677) a. Wenn (**nur**) zwei Leute einsteigen, wird das Boot **schon** sinken.
if only two people get.in will the boat already sink
'(Even) if (only) two people get in, the boat will **already** sink.'

b. *described situation:*




As indicated, a unification of *schon* 'already' in minimal sufficiency conditionals and marginality *already* as in (675) is possible according to our intuitions. As shown in (678), *schon* 'already' conveys closeness to a threshold.

(678) *Context: We all know that two people are enough to sink this boat.*

Wenn (**nur**) fünf Leute einsteigen, wird das Boot (#**schon**) sinken.
if only five people get.in will the boat already sink
'(Even) if (only) five people get in, the boat will (#**already**) sink.'

And as shown in (679) versus (680), the perspective is on alternatives that are below the threshold.

(679) a. Wenn eine Person einsteigt, wird das Boot **noch nicht** sinken.
if one person get.in will the boat not yet sink
'If one person gets in, the boat will not yet sink.'

b. (Aber) wenn (nur) zwei Personen einsteigen, wird das Boot **schon** sinken.
but if only two people get.in will the boat already sink
'(But) if (only) two people get in, the boat will already sink.'

(680) a. Wenn fünf Person einsteigen, wird das Boot **definitiv** sinken.
if five person get.in will the boat definitely sink
'If five persons get in, the boat will definitely sink.'

b.# (Aber) wenn (nur) zwei Personen einsteigen, wird das Boot **schon** sinken.
but if only two people get.in will the boat already sink
'(But) if (only) two people get in, the boat will already sink.'

Ippolito (2007), focusing on occurrences of *still/already* as in (681), posits a semantics for marginality *already/still* that treats these elements as additive presupposition triggers that have the semantics of adjectival modifiers (of type <<e,<d,et>>,t>, cf. Kennedy & McNally 2005). Her semantics is given in (682) (adapted from Ippolito 2007:24).

(681) a. Compact cars are **still** fairly safe; subcompacts start to get dangerous.

b. Compacts are **already** safe.

(Michaelis 1993:223, 230)

(682) a. $||\textbf{still}||^{c,g} = \lambda x.\lambda P_{<d<et>>} : \exists y \neq x\ [\exists d[C(d) \text{ and } \mathbf{P}(y) \geq d]]$ . ADDITIVITY

"**Presupposition:** There is a salient alternative of which the same property holds."

$\exists d[C(d) \text{ and } P(x) \geq d]]$ POS

"**Truth Conditional Content:** The degree to which P holds of (x) is above the contextual standard."

b. $||\textbf{already}||^{c,g} = \lambda x.\lambda P_{<d<et>>} : \exists y \neq x\ [\exists d[C(d) \text{ and } \mathbf{A_P}(y) \geq d]]$ . ADDITIVITY

"**Presupposition:** There is a salient alternative of which the antonym property holds."

$\exists d[C(d) \text{ and } P(x) \geq d]]$ POS

"**Truth Conditional Content:** The degree to which P holds of (x) is above the contextual standard."

*where* $A_P$ is the antonym of a gradable adjective P (i.e. a gradable predicate that uses the same scale with an inverse ordering relation)

There are several reasons to diverge from Ippolito's analysis. First of all, the cases of *already* in minimal sufficiency constructions that I discussed to not lend themselves to an analysis in terms of degree predication (unless we treat the conditional modal as a gradable predicate, which we may model in terms of Villalta 2007). Secondly, it is not evident how Ippolito's additive analysis in (682) derives the fact that marginality *already/still* conveys closeness to the relevant threshold.

I will instead pursue a semantics closer to Guerzoni & Lim's (2007) view on *even*, which makes the following assumptions. First of all, *schon* 'already' in minimal sufficiency constructions takes scope over the entire conditional, i.e. it combines with a proposition. Secondly, as foreshadowed by the sketch in (677), we can assume that *schon* 'already' quantifies over alternatives which roughly correspond to the focus alternatives of *only* in the antecedent clause. We can then model additivity as a presupposition that there is a focus alternative, which is false, and we can model marginality as a presupposition that of all true focus alternatives, the modified proposition is the strongest. I propose that *schon* 'already' does not lexically associate with focus , but rather retrieves salient alternatives from the context (cf. Beaver & Clark 2008). For instance, it seems possible to have *schon* 'already' in an implicitly conditionalized matrix clause, such as (683B) (which seems to have the same relevant alternatives as (677)). This should not be possible if *schon* 'already' lexically associated with focus.

(683) A: Ist es in Ordnung, wenn nur zwei Leute einsteigen?
is it in order if only two people get.in
'Is it ok if only two people enter the boat?'

B: Nein, weil dann wird das Boot **schon** sinken.
no because then will the boat already sink
'No, because the boat will already sink in such circumstances.'

We can roughly posit a semantics for marginality *schon* 'already' as follows (which is very close to Guerzoni & Lim's 2007 view on *even*)[119].

---

[119] This analysis for marginality *already* in minimal sufficiency conditionals shares with Ippolito's (2007) analysis of concessive *still* (in (i)+(ii)) the idea that *already* is a propositional operator.

i. John studies all night, and he still failed the test.

(684) ||already||(C)(p)(w) is defined iff

$\exists q \in C\ [q \neq p\ \&\ q(w) = 0]\ \&$ (NEGATIVE) ADDITIVITY

"**Presupposition 1:** There is a false contextually given alternative."

$\forall q \in C\ [[q \neq p\ \&\ q(w) = 1] \rightarrow p <_{likely/expected} q]$ MINIMAL SUFFICIENCY

"**Presupposition 2:** The modified proposition is the least likely of all true alternatives."

If defined, then ||already||(C)(p)(w) = p(w) IDENTITY

"**Truth Conditional Content:** *already* is truth-conditionally vacuous."

This analysis is illustrated for our core example in (685).

(685) a. Wenn (**nur**) zwei Leute einsteigen, wird das Boot **schon** sinken.
if only two people get.in will the boat already sink
'(Even) if (only) two people get in, the boat will **already** sink.'

b. C (provided by the context) = {the boat will sink if one person gets in,
the boat will sink if two persons get in,
the boat will sink if three persons get in, ...}

c. **Assertion:**

If two people get in, the boat will sink.

d. **Scalar (Minimal Sufficiency) Presupposition:**

All other true alternatives ({if three persons get in the boat will sink, if four persons get in the boat will sink, ...}) are more likely than the prejacent (if two people get in, the boat will sink).

e. **(Negative) Additive Presupposition:**

There is at least one false alternative (if one person gets in, the boat will sink).

---

ii. Even if the doctor tells him not to, Harry will still run the marathon.
(Ippolito 2007:25)

However, Ippolito's analysis does not seem to carry over to the phenomenon under discussion. She argues that *still* in (ii) presupposes that it is less likely [that Harry runs the marathon if the doctor tells him not to] than [that Harry runs the marathon if it's not the case that the doctor tells him not to]. Treating *already* as the dual, this would predict that (iii) presupposes that it is more likely [that the boat sinks if only two people get in] than [that the boat sinks if it's not the case that only two people get in]. This is clearly not the case.

iii. Even if only two people get in, this boat will already sink.

Notably, my analysis also accounts for the occurrence of *schon* 'already' as a discourse particle in German (cf. Thurmair 1989, Ormelius-Sandblom 1997). Consider Thurmair's (1989) example in (686). If we assume that the statement *nothing is ok* (or, as I more conservatively suggest, *zwieback is ok*) is a salient alternative to *cauliflower casserole is ok* in (686a), we derive the right meaning in (686d-e) and also derive the deviance of (686b), given that *meat is ok* is (in a meat-eating culture) assumed to be more likely than *cauliflower casserole is ok.*

(686) *In a culture that highly values eating meat and typically does not consider vegetables to be a real meal.*

Him: Soll ich morgen Blumenkohlauflauf machen oder was mit Fleisch?
'Shall I make cauliflower casserole or something with meat?'

a. Her: Blumenkohlauflauf ist **schon** okay.
cauliflower.casserole is schon ok
'Cauliflower casserole will do.'

b. Her: ? Fleisch ist **schon** okay.
meat is schon ok
'Meat will do.'

(Thurmair 1989:152,fn.73)

c. C (provided by the context) = {zwieback is ok,
cauliflower casserole is ok,
meat is ok, ...}

c. **Assertion:**

Cauliflower casserole is ok.

d. **Scalar (Minimal Sufficiency) Presupposition:**

All other true alternatives ({meat is ok, ...}) are more likely than the prejacent (cauliflower casserole is ok).

e. **(Negative) Additive Presupposition:**

There is at least one false alternative (zwieback is ok).

So, how do *only* and *already* interact in conditionals? First of all, this analysis is compatible with the observation that minimal sufficiency *only* (i.e. $\text{ONLY}_2$) is not a compositional result of $\text{ONLY}_1$ in the scope of *already*. After all, *already* is simply a

presupposition trigger like *even* that has the purpose of reinforcing the minimal sufficiency flavor of a minimal sufficiency conditional. Secondly, we have an understanding why *already* in combination with $\text{ONLY}_1$ does sometimes give rise to an $\text{ONLY}_2$-like reading. In its semantics, *already* is very similar to *even*, and it is plausible that the $\text{ONLY}_2$-like reading can arise as an inference from *already* + $\text{ONLY}_1$ just as much as it can from *even* + $\text{ONLY}_1$. The fact that *schon* 'already' can occur in minimal sufficiency conditionals that do not allow for *selbst* 'even' or *sogar* 'even', (687)+(688), may simply follow from the fact that the latter must lexically associate with focus and sometimes fail to do so, whereas *schon* 'already' inherits its alternatives from the context.

(687) a. **Schon/*Selbst/ *Sogar** wenn **nur** keiner mehr hat, sind sie zufrieden.
already even even if only nobody more has are they content
'Already / *Even if only nobody has more than everyone else, they are content.'

b. Wenn **nur** keiner mehr hat, sind sie **schon/ *selbst/ *sogar** zufrieden.
if only nobody more has are they already even even content
'If only nobody has more than everyone else, they are already / *even content.'

(688) a. **Schon/Selbst/Sogar** wenn **nur** zwei Leute einsteigen, sinkt das Boot.
already/even/even if only two people get.in sinks the boat
'Even if only two people get in, the boat will sink.'

b. Wenn **nur** zwei Leute einsteigen, sinkt das Boot **schon/*selbst/*sogar**.
if only two people get.in sinks the boat already/even/even
'If only two people get in, the boat will already sink.'

So, how do *only* and *already* interact in minimal sufficiency conditionals? In the standard case, (689a), *only* and *already* reinforce each other. While *only* indicates that the antecedent proposition is low on some salient scale, *already* indicates that the conditional asserts the strongest true alternative (i.e. the antecedent proposition is only just about sufficient for the consequent proposition to follow).

(689) a. Wenn (**nur**) zwei Personen einsteigen, wird das Boot (**schon**) sinken.
if $\text{ONLY}_2$ two persons get.in will the boat already sink
*lit.* 'If (only) two persons get in, the boat will (already) sink.'

b. *Assertion:*

'All of the closest possible worlds in which two persons get into the boat are worlds in which the boat sinks.'

c. *Contribution of* $ONLY_2$*:*

Of all the focus alternatives {one person gets in, two persons get in, three persons get in, four persons get in, ...}, which are ordered on a scale (here: totally ordered entailment scale), the modified proposition (two persons get in) is relatively low.

d. *Contribution of ALREADY:*

In the set of all contextually salient alternatives {that the boat sinks if one person gets in, that the boat sinks if two persons get in, that the boat sinks if three persons get in, ...}, there is at least one false alternative, and the modified proposition (that the boat sinks if two persons get in) is the strongest true alternative.

So why could *schon* 'already' ever be obligatory in German minimal sufficiency conditionals, as in (690), which sharply contrasts with (691).

(690) a. Es ist **schon** schlecht, [wenn es **nur** ein paar Minuten regnet].
it is schon bad if it only a few minutes rains
'It's already bad if it only rains for a few minutes.'

b.* $ONLY_1$ reading: It is bad if it does not rain for more than a few minutes.
⇒ Rain is good. (□ rain)

c.✓$ONLY_2$ reading: It is bad if it rains, even if it only rains for a few minutes.
⇒ **Rain is bad.** (□¬rain)

(691) a. Es ist schlecht, [wenn es **nur** ein paar Minuten regnet].
it is bad if it only a few minutes rains
'It's bad if it only rains for a few minutes.'

b.✓$ONLY_1$ reading: It is bad if it does not rain for more than a few minutes.
⇒ **Rain is good.** (□ rain)

c.* $ONLY_2$ reading: It is bad if it rains, even if it only rains for a few minutes.
⇒ Rain is bad. (□¬rain)

I propose that this pattern is due to the pragmatic maxim Maximize Presupposition (Heim 1991). I assume that (691) does in fact have both readings, but the ONLY$_2$ reading is blocked by virtue of a scalar implicature; an ONLY$_2$ reading requires that the matrix clause is understood as *it is just about bad*, which is stronger in terms of entailment than *it is bad*. (The statement *p is just about bad* entails *p is bad*, but it is not the case that *p is bad* entails *p is just about bad*.)

(692) a. It is just about (= schon) bad that p. ⇒ It is bad that p.

b. It is bad that p. ⇏ It is just about (= schon) bad that p.

c. *scalar implicature:*
it is bad that p *implicates* ¬[it is just about (= schon) bad that p]

This implicature may not arise (or at least be easier to cancel) if the *if*-clause precedes the matrix clause, which accounts for the fact that we find obligatory *schon* 'already' mainly in left-peripheral matrix clauses.

What we expect to see is that less categorical predicates than *bad*, which entail sufficiency in the relevant sense, may not give rise of the same type of ONLY$_2$-blocking scalar implicature. This is indeed the case, as shown in (693). In (693a), *be glad* gives rise to the scalar implicature ¬*be just about glad*, thus blocking an ONLY$_2$ reading in absence of *schon* 'already'. In contrast, (693b) contains the more gradable *be content*, which does not seem to imply ¬*be just about content*; therefore an ONLY$_2$ reading is more easily accessed in the absence of *schon* 'already'.

(693) a. Ich wäre ?#(**schon**) froh, [wenn du mir **nur** einmal geschrieben hättest].
I were schon glad if you me only once written had
'I would already be glad if you had written me once.'

*intended:* I would be glad if you had written me **at least** once, which is not much to ask for. (ONLY$_2$ reading)

b. Ich wäre (**schon**) zufrieden, [wenn du mir **nur** einmal geschrieben hättest].
I were schon content if you me only once written had
'I would already be glad if you had written me once.'

*intended:* I would be content if you had written me **at least** once, which is not much to ask for. (ONLY$_2$ reading)

So, should we assume that optatives contain a covert *schon* 'already'? I believe we can safely conclude that such an assumption is unwarranted. For one, in optatives there is no overt matrix clause that may give rise to a scalar implicature that blocks an ONLY$_2$ reading. On the other hand, we have already seen that optatives are much more felicitously described as utterances of the *be content* type than as utterances of the *be glad* type. We can thus conclude that optatives truly contain ONLY$_2$, which we have seen to independently exist in minimal sufficiency conditionals. So, what impact does ONLY$_2$ have in optatives? This is addressed in the next section.

### 6.2.5 Mitigating Expressives: On the role of *Only*$_2$ in Exclamations

The most intriguing effect of *only* in optatives is that it first appears to license optativity, and second disambiguates between optative exclamations and other types of exclamations. Let me first discuss the former property. In many languages, 'only' (under the reading that I have argued to be ONLY$_2$) is one of various elements that can license an optative interpretation for an *if*-clause. Elements that license optativity include 'only', 'at least' and interjections, though sometimes an initial sigh or a particular intonation (e.g. verum focus, cf. Rosengren 1993) is also sufficient. *If*-clauses without any marking are typically deviant, as in (694d) or (695d). How does *only* fulfill this licensing role?

(694) a. **Ach,** wenn ich reich wäre! *German*
b. Wenn ich **nur** reich wäre!
c. Wenn ich **wenigstens** reich wäre!
d.# Wenn ich reich wäre!
oh if I only at.least rich were
'If only I were (at least) rich!'

(695)a. **Eh,** da je Jovan poslušao Mariju! *Serbian*
b. Da je **samo** Jovan poslušao Mariju!
c. Da je Jovan **barem** poslušao Mariju!
d.# Da je Jovan poslušao Mariju!
oh, that be.3sg only John at.least listened Mary-acc
'If only John had (at least) listened to Mary!'

I postpone a discussion of the licensing property of particles to section 6.5. In section 6.5, I argue that prototypical elements such as interjections and particles serve as cues for optative exclamations due to their property of eliminating different competing readings of multiply ambiguous utterances. As a consequence, general principles of successful communication entail that speakers will typically use (694a-c) or (695a-c) to convey an optative, and (694d) / (695d) will be understood as the antecedent of a fragmentary hypothetical conditional. This will typically give rise to ill-formedness of (694d) and (695d), unless contextual information overrides the pragmatic inference and makes an optative reading available.

In the reminder of this section, I focus on the disambiguating effect of *nur* 'only' in exclamations, to show how a particle like this can bring out an intended reading by eliminating a possible alternative. First of all, consider two utterances that are ambiguous between a polar exclamative reading (under which they express surprise) and an optative reading (under which they express desire). (696a), which is in the subjunctive, can be uttered in a context in which the speaker knows that under certain counterfactual circumstances Anna would have given Otto the book; in such a context, it gets the reading in (696b), expressing shock or dismay at this fact. Similarly, (696a) can be uttered in a context where the speaker knows that Anna didn't give Otto the book, but wishes she had done so; in such a context, it gets the reading in (696c), expressing a wish for this to have taken place.

(696) a. Hätte die Anna dem Otto doch tatsächlich das Buch gegeben!
had$_{subj}$ the Anna to.the Otto doch indeed the book given
*lit.* Had$_{subj}$ Anna indeed given Otto the book!

b. *polar exclamative reading:*
'[It's shocking that] Anna would have indeed given Otto the book!'

c. *optative reading:*
'If only Anna had given Otto the book!'

(developed from Scholz 1991:132-133)

Similarly, the indicative example in (697a) can be uttered in a context where we know that Otto was working all night and yet he managed to wake up in time; in such a context, it expresses surprise and admiration for the fact that he didn't oversleep, as in (697b). Contrastively, (697a) can be uttered in a context where we know that Otto was working all night and we are waiting for him to show up and catch an early train with us. In this context, (697a) has the reading in (697c), where it expresses hope or desire for Otto to not have overslept and show up in time.

(697) a. Mein Gott, dass der Otto nicht verschlafen hat!
my God that he Otto not overslept has
*lit.* My God, that Otto didn't oversleep!

b. *polar exclamative reading:*
'[It's shocking that] Otto didn't oversleep!'

c. *optative reading:*
'[I hope that] Otto didn't oversleep!'

While context is usually sufficient to disambiguate between the readings in (696b+c) and (697b+c), adding *nur* 'only' into this construction is a grammatical means of disambiguation. The crucial generalization is illustrated in (698) (a modified version of (696)) and (699) (a modified version of (697)). If we add *nur* 'only' into either of these examples, the polar exclamative reading disappears and only the optative reading remains.

(698) Hätte die Anna dem Otto doch **nur** tatsächlich das Buch gegeben!
had$_{subj}$ the Anna to.the Otto doch only indeed the book given
*lit.* Had$_{subj}$ Anna only indeed given Otto the book!

* '[It's shocking that] she would have indeed given him the book!' *(polar excl.)*
✓ 'If only she had given him the book!' *(optative)*

(699) Mein Gott, dass der Otto **nur** nicht verschlafen hat!
my God that he Otto only not overslept has
*lit.* My God, that Otto didn't oversleep!

* '[It's shocking that] he doesn't oversleep!' *(polar excl.)*
✓ '[I hope that] he doesn't oversleep!' *(optative)*

The puzzle that arises is how to account for this generalization. What we can observe is that there is no incompatibility of ONLY$_2$ and surprise as such, as (700b+c) are as wellformed as (700a). (Based on the discussion of *schon* 'already' in the preceding sections, I insert *schon* 'already' to bring out the relevant reading.) Even (701) seems acceptable.

(700) a. Wenn **nur** zwei Leute einsteigen, bin ich **schon** froh.
if only two people get.in am I already happy
'Even if only two people get in, I'm already happy.'

b. Wenn **nur** zwei Leute einsteigen, schockiert es mich **schon**.
if only two people get.in shocks it me already
'Even if only two people get in, I'm already shocked.'

c. Wenn **nur** zwei Leute einsteigen, überrascht es mich **schon**.
if only two people get.in surprises it me already
'Even if only two people get in, I'm already surprised.'

(701) *Context: I expected for <u>nobody</u> to show up*
Es schockiert mich **schon**, dass **nur** eine Person gekommen ist.
it shocks me already that only one person come is
'Even that only one person came is already shocking.'

So how could we possibly account for the disambiguating effect of *nur* 'only' in exclamations?

Reconsider our entries for *EX* and ONLY$_2$, in (702) and (703).

(702) For any scale $S$ and proposition $p$, interpreted in relation to a context $c$ and assignment function $g$,

an utterance EX(S)(p) is felicitous iff $\forall q$[THRESHOLD(c) $>_S$ q $\rightarrow$ p $>_S$ q]

"EX expresses an emotion that captures the fact that $p$ is higher on a (speaker-related) scale $S$ than all contextually relevant alternatives $q$ below a contextual threshold."

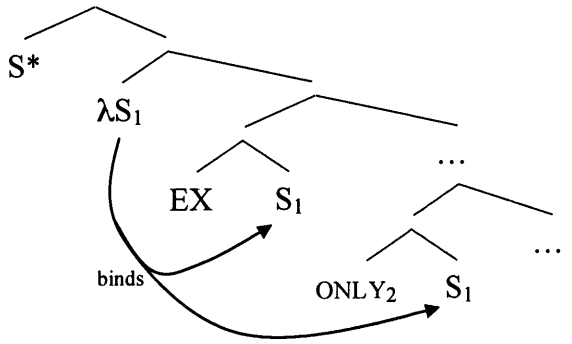
*where* THRESHOLD(c) is a function from a context into a set of worlds / a proposition that counts as high with respect to a relevant scale $S$.

(703) a. $||only_{2,C}|| = \lambda S.\lambda p : \text{MOST } q \in g(C) [q >_S p]$ . LOWNESS

b. p IDENTITY

A first possibility for deriving the disambiguating effect of ONLY$_2$ would be to connect it to the type of scale that *EX* combines with. One may conjecture that ONLY$_2$ in *EX*-utterances ends up having its scale argument co-bound (and thus co-referent) with the scale argument on *EX*. This is plausible if scale arguments, which are provided by the context are bound by a scale pro-form at the root of a tree.

(704)




Scale-matching may require for the scales of ONLY$_2$ and EX to be identical. In regular minimal sufficiency conditionals, no such scale-coreference is required, as ONLY$_2$ is the only element with a scale argument that they contain. It is thus plausible that it is the scale-matching that gives rise to the disambiguating effect of ONLY$_2$ in EX-utterances. Specifically, one may conjecture that it is the nature of the scale in polar exclamatives (an inverse likelihood scale) that blocks ONLY$_2$.

However, once again, the next step is not trivial. First, consider the meaning that we derive for the optative reading of (705a), in (705b+c). Given that *nur* 'only' here may be assumed to associate with sentential focus, the alternatives for ONLY$_2$ are constrained mainly by the context; if the alternatives are as given in (705d), then (705c) will be satisfied.

(705) a. Mein Gott, dass der Otto **nur** nicht verschlafen hat!
my God that he Otto only not overslept has
*lit.* My God, that Otto didn't oversleep!

b. *EX* ⇒ an utterance of (705) is felicitous iff ∀q[THRESHOLD(c) $>_{\text{speaker-preferences}}$ q → Otto-didn't-oversleep $>_{\text{speaker-preferences}}$ q]

c. ONLY$_2$ ⇒ Most contextually salient alternatives are such that they are higher on the speaker's preference scale than [Otto didn't oversleep].

d. Contextual alternatives:

{Otto overslept,
Otto didn't oversleep,
Otto didn't oversleep and Otto bought breakfast for everyone,
Otto didn't oversleep and the weather is nice, …}

What do we predict for the (non-existent) surprise reading of (705)? As shown in (706), no conflict is predicted to arise. It thus follows that scale-matching alone is not a satisfactory means of accounting for the disambiguating effect associated with ONLY$_2$. (We will however see that scale-matching may be involved in optatives that contain 'at least'.)

(706) a. Mein Gott, dass der Otto **nur** nicht verschlafen hat!
my God that he Otto only not overslept has
*lit.* My God, that Otto didn't oversleep!

b. *EX* ⇒ an utterance of (706) is felicitous iff ∀q[THRESHOLD(c) $>_{\text{speaker-unlikelihood}}$ q → Otto-didn't-oversleep $>_{\text{speaker-unlikelihood}}$ q]

c. ONLY$_2$ ⇒ Most contextually salient alternatives are such that they are higher on the speaker's unlikelihood scale than [Otto didn't oversleep].

d. Contextual alternatives:

{Otto overslept,
Otto didn't oversleep,
Otto didn't oversleep and Otto bought breakfast for everyone,
Otto didn't oversleep and the weather is nice, …}

Let us explore a different venue. We have seen that Dutch *maar* 'only' occurs in optatives and also has a minimal sufficiency reading, (593). Van der Wouden (1997) proposes that *maar* 'but' is a positive polarity item that cannot be in the scope of an *anti-additive* operator (contrasting with the negative polarity item *ook maar* 'also but, any',

which must be in the scope of an *anti-additive* operator), cf. Szabolcsi (2004). As we have seen, *maar* 'but' seems to have ONLY$_2$ readings and license optatives, the following question arises. Can we derive the disambiguating effect of *nur* 'only' and *maar* 'but' in optatives from polarity? I suggest that we can. Anti-additivity is defined as follows.

(707) a. A function f is antiadditive iff f(a ∨ b) = fa ∧ fb.

b. No one walks or talks = No one walks and no one talks
(Szabolcsi 2004:414)

Do different choices of scalar arguments for *EX* imply different properties with respect to antiadditivity and polarity licensing? I suggest that they do. Let us first look at desirability (which I assumed to be involved in optatives). If *a or b is desirable*, it is not necessarily the case that *a is desirable and b is desirable*, as the conjunction, *a and b*, may not be desirable. This is summarized in (708) and supported by the intuition that the statements in (709) are not contradictory. In other words, desirability is not antiadditive.

(708) It is desirable that John or Mary comes.

≠ It is desirable that John comes (no matter what)
and it is desirable that Mary comes (no matter what).
*(given that John and Mary may hate each other)*

(709) a. It is desirable that Bob or Ann comes, but it is not desirable that both come, as they hate each other.

b. It is [desirable that Bob or Ann comes], but it is not *independently* [desirable that Bob comes] and [desirable that Ann comes], as Bob and Ann hate each other. (Ann's coming is only desirable if Bob does not come and vice versa.)

Contrastively, can we show that unlikelihood (which I assumed to be involved in polar exclamatives) is antiadditive? This is not immediately obvious if we look at probability theory (e.g. if we assume that *p is unlikely* translates to *the probability of p is smaller than 33%*). On the one hand, it is clearly the case that if *a or b is unlikely*, then *a is*

*unlikely and b is unlikely*, but on the other hand, if *a is unlikely and b is unlikely*, it does not necessarily follow that *a or* b is unlikely. The crucial question is thus what 'unlikelihood' means when we are dealing with polar exclamatives. How do we measure 'subjective unlikelihood' (which we seem to be dealing with)? If the relevant scale is best conceived of as a scale of *shockingness* (i.e. if *subjective unlikelihood* is a function of *shockingness*), anti-additivity does seem to be one of its properties. The clauses in (710) feel contradictory, indicating that *shockingness* might well be anti-additive, as summarized in (711)[120]. Under such a view, probability theory would simply not capture the notion of subjective unlikelihood (i.e. shockingness).

(710) a. **??**It is shocking if John or Mary comes, but it is not shocking if John comes and it is not shocking if Mary comes.

b. **??**It is shocking if John comes and it is shocking if Mary comes, but it is not shocking if John or Mary comes.

(711) It is shocking if John or Mary comes.
= It is shocking if John comes and it is shocking if Mary comes.

So, by virtue of scale selection, polar exclamatives should be anti-additive environments, (711), while optatives should not be, cf. (708). This predicts not only that ONLY$_2$ should be bad in polar exclamatives, but it also predicts that NPIs should be bad in optatives. We already know that the latter is the case, see chapter 4 (cf. Gärtner 2010). Reconsider the example (712).

(712) a. Mensch, dass dieser Kandidat einmal einen Förderpreis erhalten hat!
man that this candidate once a grant received has
'Man, that this candidate has once received a grant!'

[120] This naturally raises the question of how to deal with (700) and (701). The intuition seems to be that *schon* 'already' is obligatory in these examples. This might indicate that we are actually dealing with a combination of 'already' and ONLY$_1$, which we have seen to give rise to apparent ONLY$_2$ readings in Czech and Portuguese.

b. *scenario for optative reading*

We are auditioning different candidates for a new job. So far, none of our candidates has ever received a grant. We are tired and desperate and really hope that the candidate who is about to enter has received a grant at least once.

*paraphrase:* '[Let's hope] that this candidate has once received a grant!'

c. *scenario for polar exclamative reading*

We are auditioning different candidates for a new job. Our last candidate was a complete disaster and we consider him completely incompetent. However, he has received a grant once in his career, which shocks us. After he leaves, we express our shock (and dismay) at this fact.

*paraphrase:* '[It's shocking] that this candidate has once received a grant!'

As shown in chapter 4, inserting an NPI appears to eliminate the optative reading.

(713) Mensch, dass dieser Kandidat **je**(mals) einen Förderpreis erhalten hat!
man that this candidate ever a grant received has
'Man, that this candidate has ever received a grant!'

* *optative reading*
✓ *polar exclamative reading*

Similarly, we have seen that inserting ONLY$_2$ eliminates the polar exclamative reading. (Naturally, (714) is well-formed if *only* has the exclusive ONLY$_1$ reading.)

(714) Mensch, dass dieser Kandidat **nur** einen Förderpreis erhalten hat!
man that this candidate only$_2$ a grant received has
'Man, that this candidate has received a grant!'

✓ *optative reading*
* *polar exclamative reading*

A combination of the positive polarity element ONLY$_2$ and an NPI is predicted to yield ill-formedness, (715).

(715) # Mensch, dass dieser Kandidat **nur** **je** einen Förderpreis erhalten hat!
man that this candidate only$_2$ ever a grant received has
'Man, that this candidate has received a grant!'

* *optative reading*
* *polar exclamative reading*

Another construction that confirms the generalization that ONLY$_2$ and NPIs are in complementary distribution is the adversative construction in (716). While such constructions seem to freely employ ONLY$_2$[121], they do not allow for NPIs either, (717). (I should remark that this raises a question of which scale such constructions employ, as *undesirability* should be anti-additive.)

(716) a. TOYBOY... wenn ich das **nur** **schon** lese. Warum diese Abwertung?
toyboy if I that only already read why this degradation
'Toyboy... [I already get annoyed] if I just read this. Why this degradation?'

(forum comment on http://top.de/21xP-Ihr-neuer-Lover-ist-gerade-mal-24)

b. "Aus angeblich sichern Quellen.... ", ha, wenn ich das **nur** **schon** lese...
from allegedly safe sources ha if I that only already read
'"From allegedly reliable sources", ha, [I feel sick] if I just read this...'

(forum comment on http://www.bunte.de/stars/victoria-und-david-beckham-fuer-ihre-kleine-prinzessin-tun-sie-alles-kommentare_aid_23833.html)

c. Meinl einigt sich aussergerichtlich; wenn ich das **nur** lese ...
Meinl agrees self out-of-court if I that only read
'Meinl comes to an extrajudicial settlement; [I get angry] if I just read this ...'

(http://www.be24.at/blog/entry/632731/meinl-einigt-sich-aussergerichtlich-wenn-ich-das-nur-lese)

(717) # Wenn ich das **je(mals)** lese!
if I that ever read
'If ever I read this!'

---

[121] In (716), an exclusive ONLY$_1$ reading, *if I do nothing but read this*, seems inapplicable.

We can thus conclude that the disambiguation effect of ONLY$_2$ in *EX* utterances seems to be due to its positive polarity. In this sense, the use of ONLY$_2$ is a grammatical means of eliminating different readings of *EX* utterances, such as a polar exclamative reading. Note that the presence of concessive 'at least' in optatives (cf. section 6.3) is further evidence that optatives are positive polarity environments, as 'at least' is not licensed in negative polarity environments, cf. Rullmann & Nakanishi (2009).

An open question that I wish to mention concerns the origin of the positive polarity that I attribute to ONLY$_2$. Why would ONLY$_2$ be a positive polarity item? How could we derive this property? What is clear is that many discourse particles seem to be positive polarity items to a stronger or lesser extent. Looking at German, discourse particles can quite generally not occur in the scope of negation, as shown in (718a) versus (718b) for *ja*, *doch*, *wohl* and *eben* (see also Thurmair 1989).

(718) a. Es ist **(ja / doch / wohl / eben) niemand** gekommen.
it is ja doch wohl eben nobody come
'Nobody came [ja / doch / wohl / eben].'

b. **Niemand** ist **(*ja / *doch / *wohl / *eben)** gekommen.
nobody is *ja *doch *wohl *eben come
'Nobody came.'

As all of these particles plausibly share the property of ONLY$_2$ that they are truth-conditionally vacuous, I conjecture that truth-conditional vacuity may be one of the possible causes of positive polarity[122].

### 6.2.6 Interim Summary

In this section, I have proposed an analysis for *only* in optatives. I argued that *only* in conditionals generally gives rise to two readings, the canonical exclusive ONLY$_1$ reading and a non-canonical ONLY$_2$ reading, in which it merely marks lowness on a salient scale. I discussed the existence of minimal sufficiency conditionals, which contain ONLY$_2$ in their

[122] It is worth pointing out that even if truth-conditional vacuity is a potential cause of positive polarity, it does not automatically follow that it is a sufficient condition for positive polarity. In other words, there might be truth-conditionally vacuous elements that do not classify as positive polarity items.

antecedent, and I showed that ONLY$_2$ does not arise compositionally from interpreting ONLY$_1$ in the scope of EVEN or ALREADY. Finally, I argued that the disambiguating effect of ONLY$_2$ in *EX* utterances is its positive polarity. Due to the inverse likelihood scale that they select, polar exclamatives are anti-additive and thus disallow for ONLY$_2$. An utterance that is ambiguous between an optative reading and a polar exclamative reading can thus be disambiguated by means of inserting ONLY$_2$. In the following two sections, I discuss *at least* and *doch*, two further elements that are cross-linguistically prototypical for optatives. The upcoming discussions are naturally shorter, as I will be drawing on insights from the present section.

## 6.3 On *At Least* and Compromises

This sub-chapter is dedicated to another property of optative constructions – the prototypical connection to *at least*. The core observation can be summarized in two steps. First, we notice that cross-linguistically optatives employ elements that roughly mean 'at least', as illustrated in (719)[123] for Serbian. (We will see more examples soon.)

(719) a. Da je Jovan **makar** poslušao Mariju! *Serbian*
that be.3sg John at.least listened Mary-acc
'If at least John had listened to Mary!'

b. **Makar** je Jovan poslušao Mariju.
at.least be.3sg John listened Mary-acc
'At least John listened to Mary.'

Second, we observe that the connection between optativity and *at least* is far from coincidental. Apart from the fact that, as we will see, a wide range of languages exhibit this connection, we can also observe the inverse connection when looking at some diachronic evidence. Historically, the Middle Greek optative marker *makárie* 'happy, favorable (vocative)' became a loan word into several European languages, Including

[123] It is worth pointing out that (719b) is not an entirely innocent example as it stands, as we are dealing with *at least* that takes propositional scope, a fact that will become crucial in this sub-section.

Italian, Romanian, Serbian, Slovenian, Old Spanish and Occitan (Diez 1887, Buchi 2008)[124]. The Modern Greek cognate *makari* only has an optative meaning:

(720) **Makari** o John na akusi tin Mary! *Modern Greek*
MAKARI the John subj listened the Mary.acc
'If only John had listened to Mary!'

Importantly, as we have seen in (719) above, there are languages such as Serbian (but also Romanian and Slovenian), where the cognates of Greek *makari* have newly acquired an 'at least, even' component, not present in the Greek original. This is particularly insightful as these languages have still partly or fully maintained the original optative function of *makari*, as shown in (719) above, which illustrates both uses.

We thus find a two way connection. On the one hand, *at least* is cross-linguistically a prototypical marker of optativity. On the other hand, there is evidence that diachronically pure optative markers such as Middle Greek *makárie* have acquired the additional meaning of *at least*. But why? – The core puzzle to be addressed in this chapter is how to account for the strong correlation between AT LEAST and optativity.

In what follows, I first illustrate the degree to which this puzzle holds, by surveying a core set of languages that apparently employ canonical *at least* in optatives, in section 6.3.1. I then introduce intriguing data from languages that superficially do not seem to pattern as nicely, in section 6.3.2. I conjecture that such languages may have designated lexical items to express the meaning of so-called concessive *at least* and proceed to review our current knowledge on concessive *at least* in section 6.3.3. Finally, in section 6.3.4, I argue that optative *at least* is always concessive *at least* and that the initial puzzle arises because many languages exhibit an ambiguity in the lexical item that they use.

[124] In Ancient Greek, *makarié* can be used to address someone as in *o makarié Kríton* 'my dear Crito!' (from Plato's dialogue *Crito*), or more generally, *o makarié* 'my good sir, my dear sir' (cf. Liddell, Scott, Jones, accessible online at http://www.perseus.tufts.edu/hopper/). This suggests that (*o*) *makarié* in optatives may actually mean 'Oh dear!'

### 6.3.1 *At Least* or not *At Least*? – Unearthing a cross-linguistic connection

The purpose of this section is to survey evidence that another prototypical particle that we find in optatives is *at least*. As a starting point, we notice that some languages use the same element in optatives that we find in (721). I will illustrate these first and state the puzzle that we need to solve. I will then show that there are other languages that use an element that appears to mean 'at least' but cannot be used in (721). I discuss these languages next; I will then draw some generalizations and proceed to an analysis.

(721) a. There are **at least** 5 apples in this bag.
b. In the traffic accident, there were **at least** 5 casualties.

Languages that use an element in optatives that can also be used in (721) (and similar constructions) include German, Icelandic, Czech, Serbian/Croatian, Italian, Spanish, Portuguese, Catalan, Greek and Hebrew. As we will see, German is however a borderline case, as we can use the optative *at least* only (to a limited extent) in (721a) and not in (721b); more on this in section 6.3.2.

(722)a. Wenn Hans **wenigstens** auf Maria gehört hätte! *German*
if Hans at.least to Maria listened had

b. Kdy-by **aspoň** Honza poslechl Marii! *Czech*
when-subj.3 at.least Honza listened.pst.ptcp Marie.acc

c. Da je Jovan **barem** (po)slušao Mariju! *Serbian/Croatian*
that be.3sg John at.least listened Mary-acc

d. Se John avesse **almeno** ascoltato Maria! *Italian*
if John had at.least listened.to(past.subj) Mary

e. Si Juan hubiera **al menos** escuchado a María! *Spanish*
if Juan had.sub.past at least listened to Mary

f. Se **ao menos** o João tivesse ouvido a Maria! *Portuguese*
if at.the least the John had listened.to the Mary

g. Si **almenys** hagués escoltat (a) la Maria! *Catalan*
if at.least had.subjunctive listened to the Mary

h. An **toulachiston** o John iche akusi tin Mary! *Greek*
if at.least the John.nom had.3sg listened the Mary.acc

i. lu John haya **le-faxot** makSiv le-Mary! *Hebrew*
if.cf John be.past.3sg to-less listen.pres.3sg to-Mary

j. Ef Jón hefði **að minnsta kosti** hlustað á Maríu! *Icelandic*
if John had at least choice listened toMary

*lit.* 'If John/he had **at least** listened to Mary!'

Relevant examples that show that we are dealing with the same *at least* that we find in (721) are given below. (Native speakers of German will already notice a slight dispreference for *wenigstens* 'at least', coupled with the intuition that *wenigstens* 'at least' conveys a positive evaluation. I will come back to this, as it is crucial for my analysis. For Icelandic, a relevant example is given in (724j).)

(723) a. In diesem Sack sind ?**wenigstens** / **mindestens** fünf Äpfel. *German*
in this bag are at.least at.least five apples

b. V této tašce je **aspoň** pět jablek. *Czech*
in this.loc bag.loc is.sg at.least five.nom apples.gen.pl

c. U ovoj torbi ima **barem** pet jabuka. *Serbian/Croatian*
in this bag have.3s.pres at.least five apples

d. Ci sono **almeno** quattro mele in questa borsa. *Italian*
there are at.least four apples in this bag

e. Hay **al menos** cuatro manzanas en esta bolsa. *Spanish*
there.are at least four apples in this bag

f. Há **ao menos** quatro maçãs nessa/nesta cesta/sacola. *Portuguese*
there.are at least four apples in.this bag

g. En aquesta bossa hi ha **almenys** cinc pomes. *Catalan*
in this bag there have at.least five apples

h. Afti i tsanda periexi **tulachiston** tesera mila. *Greek*
this the bag contains.3sg at.least four apples

i. ba-sal ha-ze yeS **le-faxot** arba'a tapux-im *Hebrew*
in.the-basket the-this exist at-least four.masc apple.masc-pl

'There are four/five apples in the basket.'

Importantly, these languages can also use this element in contexts that do not imply a positive evaluation. German is an exception here, which, as indicated above, will become relevant later.

(724) a. Bei dem Unfall gab es mindestens / **#wenigstens** zehn Tote. *German*
at the accident gave it at.least at.least ten dead

b. Při té nehodě zemřelo **aspoň** pět lidí. *Czech*
at that accident died.sg.neut at.least five people

c. U sabraćajnoj nesreći je bilo **barem** pet žrtava. *Serbian/Croatian*
in traffic accident was be.3s.past at.least five casualties

d. Nell' incidente automobilistico ci sono stati **almeno** 5 vittime. *Italian*
in.the'accident car there are been at.least 5 victims

e. En el accidente de tráfico, hubo **al menos** cinco víctimas. *Spanish*
in the accident of traffic there.was at least five victims

f. No acidente de carro, **ao menos** cinco pessoas morreram. *Portuguese*
in.the accident of car at least five people died

g. En l'accident de cotxe hi va haver **almenys** cinc accidentats. *Catalan*
in the'accident of car there aux have at.least five casualties

h. Sto aftokinitistiko atiximа, skotothikan **tulachiston** pende anthropi. *Greek*
in-the car accident were.killed at.least five people

i. be-te'unat ha-drax-im hayu **le-faxot** xamiSa harug-im *Hebrew*
in-accident the-way-pl exist.masc-pl at-least five.masc casualty.masc-pl

j. Í bílslysinu voru **að minnsta kosti** fimm dauðsföll. *Icelandic*
in car-accident were at least choice five casualties

'There were at least 5 casualties in the traffic accident.'

Let me now move on to a broader range of languages, which pattern in a slightly different way. I then proceed to propose a solution for this puzzle.

### 6.3.2 *At Least* the plot thickens...

This is a good place to dwell on German for a moment. German differs from the other languages surveyed above in that *wenigstens* 'at least' (as opposed to *mindestens* 'at least') implies a positive evaluation, (725) (an observation shared by Gast 2011). In the

next section, I take this to be an indication that the *at least* in optatives is an instance of Nakanishi & Rullmann's (2009) *concessive at least,* which conveys a positive evaluation of the modified proposition.

(725)a. Bei dem Unfall gab es **wenigstens** / mindestens fünf Überlebende.
at the accident gave it at.least at.least five survivors
'There were at least five survivors in the accident.'

b. Bei dem Unfall gab es **#wenigstens** / mindestens fünf Tote.
at the accident gave it at.least at.least five deads
'There were at least five casualties in the accident.'

While Serbian (and Croatian) *barem* 'at least' does not seem to have this property, it appears that *makar* 'at least' may have a tendency towards a concessive *at least* reading, as it is somewhat marked in the negative context.

(726)a. Da je Jovan **makar** poslušao Mariju! *Serbian*
that be.3sg John at.least listened Mary-acc
'If at least John had listened to Mary!'

b. U sabraćajnoj nesreći je bilo **barem / ?makar** pet žrtava.
in traffic accident was be.3s.past at.least at.least five casualties
'There were at least five casualties in the accident.'

c. **Barem / ??makar** 5 studenata nije položilo ispit.
at.least at.least 5 students did-not pass exam
'At least 5 students didn't pass the exam.'

d. **Makar** je Jovan poslušao Mariju.
at.least be.3sg John listened Mary-acc
'At least John listened to Mary.'

In light of German and Serbian, it seems adequate to generalize and assume that *at least* in optatives is always concessive *at least* in the above languages. While I cannot give a detailed discussion of each individual language and will largely focus on German as a case study, the following languages further support this view.

Extending the empirical scope, we find languages in which the *at least* in optatives cannot occur in contexts like (723) and (724) at all. What we find in such languages is

that the optative *at least* occurs in one or more of the following contexts. First, it sometimes occurs in negative or modal contexts (where it is equivalent to English *even*); or, second, it sometimes occurs as a complementizer meaning 'although' (which indicates a semantic connection to German *doch* and Dutch *toch*, which I discuss in section 6.4. However, the element that occurs as optative *at least* can always also have the function of Nakanishi & Rullmann's (2009) concessive 'at least'. Importantly it often falls into more than one of these categories within a language, as we see below, indicating a fundamental connection between such meanings as the meaning of 'even', the meaning of 'although' and the meaning of concessive *at least*[125]. Let me review a number of languages in turn.

Let us start with Russian. First of all, we observe that *xotja* 'at least' occurs in optatives, (727a), but is ungrammatical in the neutral *at least* cases that I tested above, cf. (727b+c).

(727) a. Esli by Vanja **xotja** by poslusha-l Mash-u! *Russian*
if subj Vanja.nom at.least subj listen-past.m.sg Masha-acc
'If at least Vanja had listened to Masha!'

b. V etoj muke po krajnej mere / kak minimum / ***xotja** chetyre jabloka.
in this bag at least as minimum at.least four apples
'In this bag, there are at least four apples.'

c. V avarii pogiblo po krajnej mere / kak minimum / ***xotja** pjat' chelovek.
in accident died at least as minimum at.least five men
'At least five people died in the car accident.'

Strikingly, we do find cases where *xotja* 'at least' can occur meaning *at least*, (728a+b), and as Ionin (2001) remarks, *xotja* 'at least' is bad in non-emotive clauses. This leads me to conjecture that *xotja* 'at least' like German *wenigstens* 'at least' only has a concessive reading, in accordance with the analysis that I posit below for *at least* in optatives. I will come back to this later.

[125] See Rullmann & Nakanishi (2009) on the connection between *even* and *at least*.

(728) a. (**Xotja** by) ODIN mal'čik videl KAŽDUJU devočku.
at.least one boy saw every girl
'At least one boy saw every girl.'

(Ionin 2001:26, Stepanov & Stateva 2009:178, emphasis mine)

b. Bud' **xot'** nemnogo vnimatelen.
be at.least a.little attentive
'Be at least a little attentive.'

(Iordanskaja & Mel'čuk 2004:17, emphasis and glosses mine)

c. Nu on **xotj/xotja by** vyigral chto-to!
well he.nom at.least won:m.sg something
'Well, at least he won something!'

Even more interestingly, *xotja* 'at least' also has the concessive meaning 'although, even though', (729), which shows a transition from being an AT LEAST type element to a DOCH type element. We will see the relevance of this observation in the next chapter.

(729) a. Moi druz'ja nikogda ničego ne čitajut. **Xotja** èto ne sovsem tak.
my friends never nothing not read although this not entirely so
'My friends never read anything. Well, that's not quite true. [...]'

(Neeleman & Titov 2009:516, emphasis mine)

b. *He has already read (at least some of The Fortress once)...*

**Xotja** on ne do-čita-l do konca.
even.though he not PF-read-PST.3s until end
'Even though he did not finish it.'

(Altshuler 2010:78, emphasis and context line mine)

c. Čemodan tjažëlyj/lëgkij, **xotja** i ne očen'
suitcase light/heavy although prt not very
'The suitcase is light/heavy, although not very.'

(Iordanskaja & Mel'čuk 2004:9, emphasis and glosses mine)

Russian thus fits the picture that we have constructed so far; *xotja* 'at least' seems to share semantic content both with concessive *at least* and with German *doch* (a contrast marker).

Let us now have a look at Polish. Polish also seems to employ a variant of 'at least' in optatives that exclusively has the concessive reading. As shown in (730), *co najmniej* 'at least' must be used in order to achieve the intended neutral reading; *chociaż* 'at least' is possibly but entails a positive evaluation of the event – it only has the concessive reading.

(730) a. Gdyby / Żeby Jan **chociaż** (po)słuchał Marii! *Polish*
if if John at.least listen.(perf.)pret.3sg.m Mary.gen.nom.f
'If at least Jan had listened to Mary!'

b. W torbie są co najmniej / (#)**chociaż** cztery jabłka.
in bag are at least at.least four apples
*co najmniej* ⇒ 'In this bag, there are at least four apples.'
*chociaż* ⇒ 'Luckily, there were four applies in the bag.'

c. W wypadku (samochodowym) było co najmniej / (#)**chociaż** pięć ofiar.
in accident car was at least at.least five casualties
*co najmniej* ⇒ 'At least five people died in the car accident.'
*chociaż* ⇒ 'It is good that there were five casualties (more would have been better).'

The fact that *chociaż* 'at least' has a concessive reading is further supported by the fact that the most natural context for *chociaż* is in clauses like (731).

(731) No, **chociaż** coś wygraliśmy *Polish*
well at.least something won.2pl.past
'Well, at least you won something.'

As with Russian *xotja* 'at least', Polish *chociaż* 'at least' (which is possibly a cognate) exhibits semantic drift and can also be used to mean 'although'.

(732) a. Kupił cukier, **chociaż** miał go w domu. *Polish*
bought sugar although had it in home
'He bought sugar, although he had it at home.'
(http://pl.wiktionary.org/wiki/chociaż, verification courtesy of Bartosz Wiland)

b. Jan nie dostał pracy, **chociaż** chiał.
John not got job although tried
'John didn't get the job, although he tried.'

Finnish and Romanian are somewhat more difficult to integrate into our present picture. Let me first briefly review Finnish. First of all, we observe that *edes* 'at least', which is the 'at least'-type item that we find in optatives, (733a), also has a use as an *even*-type NPI, cf. (733c) versus (733b). It does not occur in canonical 'at least' contexts, (733b+d).

(733) a. olisi-pa John **edes** kuunnellut Maria! *Finnish*
be.cond-PA John at.least listen Mari.part
'If only John had at least listened to Mary!'

b. tässä pussissa on ainakin / vähintään /***edes** neljä omenaa
this.iness bag.iness is.3sg at.least at.least at.least four apple.part
'There are at least four apples in this bag.'

c. tässä pussissa ei ole **edes** neljää omenaa
this.iness bag.iness not be even four apple.part
'In this bag, there are not even four apples.'

d. Auto-onnettomuudessa kuoli ainakin/vähintään/***edes** viisi ihmistä
car-accident.iness died.3sg at.least/at.least/at.least five people.part
'In the car accident, at least five people died.'

In modal contexts, *edes* 'at least' can have both an EVEN-type interpretation (if it is in the scope of negation), (734a), as well as an AT LEAST-type interpretation (if it is not in the scope of negation), (734b). Finally, we see that *edes* 'at least' again also has a concessive *at least* meaning, (734c); it is thus an element that only expresses concessive *at least* and not canonical *at least*.

(734) a. Älä **edes** kuvittele! *Finnish*
don't even think.imperative
'Don't you **even/*at least** think!'

b. Voisit **edes** lähettää hänelle kortin.
can.cond at.least send him.all card.gen
'You could **at least/#even** send her/him a card.'

(http://en.wiktionary.org/wiki/edes, verification courtesy of Mikko Kupula)

c. No, voitti(han) hän **edes** jotakin.
well win(prt) he at.least something
'Well, at least he won something!'

Romanian patterns very much like Finnish, with *măcar*, the optative 'at least'-type element, (735a) also behaving as an NPI, (735c) versus (735b+d).

(735) a. Dacă Jon **măcar** ar fi ascultat de Mary! *Romanian*
if Jon at.least had listened of Mary
'If only John had at least listened to Mary!'

b. Sunt cel putin / ***măcar** patru mere in punga asta.
are at least at.least four apples in bag this
'There are at least four apples in this bag.'

c. Nu am nici **măcar** 4 mere.
not have not even four apples
'I don't even have four apples'

d. In accidentul de masina au fost cel putin / ***măcar** cinci accidentati.
in the.accident of car have been at least at.least five casualties
'In the car accident, there were at least five casualties.'

Again, if we look past the initial examples, we see instantly that *măcar* 'at least' can occur outside of NPI-licensing contexts, with the meaning of concessive *at least*, (736). This again indicates that *măcar* 'at least' has the meaning of concessive *at least*, but not the meaning of canonical *at least*.

(736) **Măcar** a castigat ceva! *Romanian*
at.least has won something
'At least he has won something!'

So, it does seem in place to draw an overall conclusion that all of the languages discussed above employ an AT LEAST in optatives that can also mean AT LEAST in other contexts – either (in many languages) canonical AT LEAST, or (in German, Russian, Polish, Finnish and Romanian) concessive AT LEAST. I propose that AT LEAST in optatives is always an instance of concessive AT LEAST. This conclusion will be backed up further in the next sections.

### 6.3.3 The Missing Link: Concessive *At Least*

The purpose of this section is to review our knowledge of concessive *at least* and to make the connection between concessive *at least* and optative *at least*. Nakanishi & Rullmann (2009) discuss the ambiguous nature of English *at least*. They argue that English *at least* has two readings, which they call its *epistemic reading*, (737), and its *concessive reading*, (738).

(737) *epistemic at least* [126]

||at least||(C)(p)(w) is defined iff
$\exists w'[Epist(w,w') \wedge \exists q \in C\ [q > p \wedge q(w') = 1]]$ UNCERTAINTY

"**CI / Presupposition:** The speaker is unsure whether a higher scalar value holds or not."

If defined, then
$||at\ least||(C)(p)(w) = 1$ iff $\exists q \in C\ [q \geq p \wedge q(w) = 1]$ ASSERTION

"**Truth Conditional Content:** The modified proposition or a higher scalar value holds."

(slightly modified from Nakanishi & Rullmann 2009, paraphrases are mine)

(738) *concessive at least*

||at least||(C)(p)(w) is defined iff
$\forall r,r' \in C\ [r' > r \leftrightarrow$ r' is preferred to r] BOULETIC SCALE

"**CI / Presupposition 1:** Relevant alternatives are ordered according to preference."

$\exists q \in C\ [q > p]$ BETTER ALTERNATIVE

"**CI / Presupposition 2:** There is a salient alternative that is more preferable than p."

$\exists q \in C\ [q < p]$ WORSE ALTERNATIVE

"**CI / Presupposition 3:** There is a salient alternative that is less preferable than p."

If defined, then
$||at\ least||(C)(p)(w) = p(w)$ ASSERTION

"**Truth Conditional Content:** Concessive *at least* is truth-conditionally vacuous."

(slightly modified from Nakanishi & Rullmann 2009, paraphrases are mine)

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[126] Nakanishi & Rullmann (2009) treat the uncertainty contribution as a conventional implicature, whereas I treat it as a definedness condition. In the scope of my project, this distinction is not at stake, which is why I uniformly model such non-truth-functional meanings as definedness conditions / presuppositions. Note: Nakanishi & Rullmann (2009) acknowledge Krifka (1999), Geurts & Nouwen (2007) and Büring (2008) as the basis of their analysis.

The core difference is that epistemic *at least* conveys epistemic uncertainty as to which focus alternative holds, (739a), whereas concessive *at least* conveys a commitment to the expressed proposition, coupled with a positive evaluation, (739b).

(739) a. Mary on **at least** a silver medal. *(epistemic)*

⇒ The speaker is uncertain about what medal Mary won.

b. Mary didn't win a gold medal, but **at least** she won a silver medal. *(concessive)*

⇒ Although winning a silver medal is less preferable than winning a gold medal, a silver medal is satisfactory.

(Nakanishi & Rullmann 2009)

Let me briefly review the properties of concessive *at least* and then proceed to argue that optative *at least* is always concessive *at least*.

First of all, Nakanishi & Rullmann argue that languages differ in which lexical items have an epistemic reading and which lexical items have a concessive reading. They present the overview in (740), where *E* stands for *epistemic reading* and *C* stands for *concessive reading*.

(740)

| language | item | only E | E or C | only C |
|---|---|---|---|---|
| English | *at least* | – | ✓ | – |
| | *at the very least* | ✓ | – | – |
| Dutch | *tenminste* | – | ✓ | – |
| | *minstens, op z'n minst* | ✓ | – | – |
| Japanese | *sukunaku-to-mo* | – | ✓ | – |
| | *-dake-demo* | – | – | ✓ |
| (Nakanishi & Rullmann 2009) | | | | |

In light of this distinction, I will argue that the languages that exhibit optative *at least* always employ concessive *at least* in optatives, i.e. the element that we seen in optatives either has both readings or only the concessive reading, (741).

(741)

| language | item | only C | E or C |
|---|---|---|---|
| Icelandic | *að minnsta kosti* | – | ✓ |
| Czech | *aspoň* | – | ✓ |
| Serbian/Croatian | *barem* | – | ✓ |
| Italian | *almeno* | – | ✓ |
| Spanish | *al menos* | – | ✓ |
| Portuguese | *ao menos* | – | ✓ |
| Catalan | *almenys* | – | ✓ |
| Greek | *tulachiston* | – | ✓ |
| Hebrew | *le-faxot* | – | ✓ |
| German | *wenigstens* | ✓ | – |
| Serbian/Croatian | *makar* | ✓ | – |
| Russian | *xotja* | ✓ | – |
| Polish | *chociaż* | ✓ | – |
| Finnish | *edes* | ✓ | – |
| Romanian | *măcar* | ✓ | – |

While this will not be useful for our investigation (given that English does not allow for *at least* in optatives), Nakanishi & Rullmann (2009) present the data set in (742), which I report as it is useful for the reader to probe her/his own intuitions.

(742) a. Mary won **at least** a silver medal. *only E*
b. Mary **at least** won a silver medal. *E or C*
c. **At least** Mary won a silver medal. *prefer C*
d. Mary won a silver medal **at least**. *E or C*
(Nakanishi & Rullmann 2009)

Much more importantly, as we will be employing this as a diagnostic for concessive readings, Nakanishi & Rullmann show that epistemic readings are odd whenever we know that the higher values on a salient scale do not hold, (743)+(744).

(743) a.# Mary didn't win a gold medal, but she won **at least** a silver medal. (*only E*)
b. Mary didn't win a gold medal, but **at least** she won a silver medal. (✓*C*)
(Nakanishi & Rullmann 2009)

(744) a.# Mary doesn't have three children, but she has **at least** two. (*only E*)

b. Mary doesn't have three children, but **at least** she has two. (✓*C*)

(Nakanishi & Rullmann 2009)

The following examples briefly illustrate four further properties of concessive *at least*, which I will come back to later.

First, utterances with concessive *at least* entail the denoted proposition, which is not the case with epistemic *at least*.

(745) a. Mary is **at least** an associate professor. *(E)*

$\not\Rightarrow$ Mary is an associate professor.

b. **At least** Mary is an associate professor. *(C)*

$\Rightarrow$ Mary is an associate professor.

(Nakanishi & Rullmann 2009)

Second, concessive *at least* conveys that higher values are preferable over lower values, which is not the case for epistemic *at least*.

(746) a. Mary fired **at least** five employees. *(E)*

$\Rightarrow$ No preference.

b. **At least** Mary fired five employees. *(C)*

$\Rightarrow$ Better to fire more employees.

(Nakanishi & Rullmann 2009)

Third, concessive *at least* conveys that the speaker (or another salient attitude holder) is 'settling for less', in a way in which epistemic *at least* does not convey this.

(747) a. Phelps won **at least** eight gold medals. *(E)*

$\Rightarrow$ Neutral.

b.# **At least** Phelps won eight gold medals. *(C)*

$\Rightarrow$ Winning eight gold medals falls short of an intended goal or standard.

(Nakanishi & Rullmann 2009)

Fourth and finally, concessive *at least* maintains the same scalar implicature that we find in clauses without *at least*.

(748) a. Mary wrote **at least** four novels. *(E)*

⇒ No scalar implicature.

b. **(At least)** Mary wrote four novels. *(C)*

⇒ Mary didn't write more than 4 novels.

(Nakanishi & Rullmann 2009)

The next section is dedicated to connecting optative *at least* to Nakanishi & Rullmann's concessive *at least*.

### 6.3.4 A Generalized Concessive *At Least* for Optatives and Beyond

The proposal that I wish to defend is that optative *at least* always has the semantics of concessive *at least*, as given in (749). I differ from Nakanishi & Rullmann (2009) in assuming that *at least* combines with a contextually provided scale argument *S*. This has the advantage that we now have a means of identifying the scale on *EX* with the scale argument of *at least*, and it further allows us to connect *S* on *at least* to different attitude holders.

(749) $\|\text{at least}_C\|^{g,c} = \lambda S.\lambda p$ :

S is a bouletic ordering ∧ BOULETIC

"**Presupposition 1:** The contextually salient scale is a bouletic scale."[127]

$\exists r \in g(C)\ [r >_S p] \wedge \exists q \in g(C)\ [p >_S q]$ . SECOND CHOICE

"**Presupposition 2:** With respect to the relevant preferences, p is good but not optimal."

p IDENTITY

"**Truth Conditional Content:** Concessive *at least* is truth-conditionally vacuous."

[127] Recall that in English, optative *only* seems to have acquired such a presupposition as well, as shown in (583).

The assumption that optative *at least* is an instance of concessive *at least* has several implications. Most crucially, it implicates that optatives will always use an *at least* type element that has either only a concessive reading or both a concessive reading and an epistemic reading; optatives will never use an *at least* type element that has only an epistemic reading. We have already seen in the section before last that Russian, Polish, Romanian, Finnish, German and Serbian have *at-least*-optatives that employ a specialized concessive at least. The core question that now arises is the following. We know that many languages (like Spanish, Portuguese, Catalan, etc) use the same *at least* in epistemic *at least* contexts and in optatives. Is there evidence that in all these languages said *at least* type element also has a concessive reading? I will discuss this in a moment. But first, it is worth casting a second look at German, which is the main object language in this dissertation. What we find is that German exhibits roughly the pattern that we expect. First, we see that *wenigstens* 'at least' has a concessive reading, whereas *mindestens* 'at least' has only an epistemic reading, cf. (750a). Second, we see that *wenigstens* 'at least' has only a concessive reading; the positive implicature (it is good that...) cannot be canceled, cf. (750b). So we can conclude that German has both a designated concessive *at least* (*wenigstens*) and a designated epistemic one (*mindestens*).

(750) a. Er hat keine Goldmedaille gewonnen, aber **wenigstens** / **#mindestens**
he has no gold.medal won but at.least*(C)* at.least*(E)*
eine Silbermedaille.
a silver.medal
'He didn't win a gold medal, but at least he won a silver medal.'

b. Bei dem Unfall gab es **#wenigstens** / **mindestens** fünf Tote.
at the accident gave it at.least*(E)* at.least*(C)* five deads
'There were at least five casualties in the accident.'

As expected, only the concessive *at least* can be used in optatives, whereas the purely epistemic *at least* is incompatible.

(751) a. Wenn Hans **wenigstens** eine Bronzemedaille gewonnen hätte!
if Hans at.least*(C)* a bronze.medal won had
'If at least Hans had won a bronze medal!' *(optative)*

b.# Wenn Hans **mindestens** eine Bronzemedaille gewonnen hätte!
if Hans at.least*(E)* a bronze.medal won had
'If Hans had won at least a bronze medal…' *(incomplete conditional)*

Note that *zumindest* 'at least' is an interesting in-between case, as it does have a concessive reading, (752a), as well as an epistemic reading, (752b), yet it is not sufficient to license optativity, (752c). I interpret this as indicating that prototypical optative particles must in many cases be able to disambiguate between a conditional reading and an optative reading, and *zumindest* 'at least' is too frequently used in the epistemic non-concessive sense to achieve this feat.

(752)a. Er hat keine Goldmedaille gewonnen, aber **zumindest** eine Silbermedaille.
he has no gold.medal won but at.least a silver.medal
'He didn't win a gold medal, but at least he won a silver medal.'

b. Bei dem Unfall gab es **zumindest** fünf Tote.
at the accident gave it at.least five deads
'There were at least five casualties in the accident.'

c.??Wenn Hans **zumindest** eine Bronzemedaille gewonnen hätte!
if Hans at.least a bronze.medal won had
'If at least Hans had won a bronze medal!'

After this brief discussion of German, let us review the languages discussed above to show that the evidence is consistent with an analysis that assumes that they all use concessive *at least* in optatives (and not epistemic *at least*). Specifically, we have seen above that languages like Spanish, Portuguese, Catalan, etc, use an element in optatives that does have an epistemic *at least* reading. I now show that the same element always also has a concessive *at least* reading. The following examples from Hebrew, Greek, Czech and Spanish indicate that this is the case[128].

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[128] Note that this diagnostic is not perfect. The examples in (i)+(ii) show that Finnish *edes* does not pass these diagnostics even though it clearly has a concessive *at least* reading, as in (iii). We thus need to be careful not to overrate false negatives. (Another language that yields false negatives here is Portuguese.) I interpret these facts as indicating that concessive *at least* may sometimes just be blocked by a more specific concessive construction type.

(753)a. lu John haya **le-faxot** makSiv le-Mary! *Hebrew*
if.cf John be.past.3sg to-less listen.pres.3sg to-Mary
*lit.* 'If John/he had **at least** listened to Mary!'

b. Mary lo zaxta be-medalyat zahav, aval **le-faxot** hi zaxta be-medalyat
Mary not won in-medal gold but at-least she won in-medal
kesef.
silver
'Mary didn't win a gold medal, but at least she won a silver medal.'

c. le-Mary eyn SloSa yeladim, aval **le-faxot** yes l-a Snayim.
to-Mary not.exist three children but at-least exist to-her two
'Mary doesn't have three children, but at least she has two.'

(754)a. Kdy-by **aspoň** Honza poslechl Marii! *Czech*
when-subj.3 at.least Honza listened.pst.ptcp Marie.acc
*lit.* 'If John/he had **at least** listened to Mary!'

b. Marie nevyhrála zlatou medaili, ale vyhrála **aspoň** stříbrnou.
Marie neg:won gold medal but won at.least silver
'Mary didn't win a gold medal, but at least she won a silver medal.'

c. ? Marie nemá tři děti, ale má **aspoň** dvě.
Marie neg:has three children but has at.least two
'Mary doesn't have three children, but at least she has two.'

(755)a. An **tulachiston** o John iche akusi tin Mary! *Greek*
if at.least the John.nom had.3sg listened the Mary.acc
*lit.* 'If John/he had **at least** listened to Mary!'

b. I Maria dhen kerdhise chriso metalio, ala **tulachiston** kerdhise
the Maria not won gold medal but at.least won
arjiro/asimenjo (metalio)
silver medal
'Mary didn't win a gold medal, but at least she won a silver medal.'

---

i. Mari ei voittanut kultamitalia, mutta hän voitti sentään/*edes hopeaa
Mari.nom neg win goldmedal, but she won nevertheless/*at.least silver
ii. Marilla ei ole kolmea lasta, mutta hänellä on (niitä) sentään/*edes kaksi
Mari.ades neg be three children.part, but she.ades is (them) nevertheless/*at.least two
iii. no, voitti(han) hän edes/sentään jotakin
well win(-han) he at.least/nevertheless something

c. I Maria dhen echi tria pedhja, ala **tulachiston** echi dhio.
the Maria not has three children but at.least has two
'Mary doesn't have three children, but at least she has two.'

(756) a. Si Juan hubiera **al menos** escuchado a María! *Spanish*
if Juan had.sub.past at least listened to Mary
*lit.* 'If John/he had **at least** listened to Mary!'

b. Maria no gano una medalla de oro, pero **al menos** gano una medalla
Maria not won a medal of gold but at least won a medal
de plata.
of silver
'Mary didn't win a gold medal, but at least she won a silver medal.'

c. Maria no tiene tres hijos, pero **al menos** tiene dos.
Maria not has three sons but at least has two
'Mary doesn't have three children, but at least she has two.'

At this point it is worth showing that this test also works for languages that have an exclusively concessive *at least* in optatives. We have seen above that Romanian has an element *măcar* 'at least', which occurs in optatives but otherwise does not appear to have the meaning and function of *at least* (epistemic *at least*, that is); at the same time it can occur in negative contexts, meaning *even*.

(757) a. Dacă Jon **măcar** ar fi ascultat de Mary! *Romanian*
if Jon at.least had listened of Mary
'If only John had at least listened to Mary!'

b. Sunt cel putin/ ***măcar** patru mere in punga asta.
are at least at.least four apples in bag this
'There are at least four apples in this bag.'

c. Nu am nici **măcar** 4 mere.
not have not even four apples
'I don't even have four apples'

If *măcar* 'at least' really has the semantics of concessive 'at least', we expect it to occur in the prototypical contexts from Nakanishi & Rullmann (2009). This prediction is carried out, as shown in (758).

(758) a. Maria nu a câştigat medalia de aur, dar **măcar** a castigat medalia
Maria not won medal of gold but at.least won medal
de argint.
of silver
'Mary didn't win a gold medal, but at least she won a silver medal.'

b. Maria nu are trei copii, dar **măcar** are doi.
Maria not has three children but at.least has two
'Mary doesn't have three children, but at least she has two.'

Similarly, Polish *chociaż* 'at least', which we saw to occur in optatives, clearly passes the test.

(759) a. Gdyby / Żeby Jan **chociaż** (po)słuchał Marii! *Polish*
if if John at.least listen.(perf.)pret.3sg.m Mary.gen.nom.f
'If at least Jan had listened to Mary!'

b. Marie nie zdobyła złotego medalu, ale **chociaż** zdobyła srebrny.
Mary not receive gold medal but at.least receive silver
'Mary didn't win a gold medal, but at least she won a silver medal.'

c. Marie nie ma trojga dzieci, ale ma **chociaż** dwoje.
Mary not has three children but has at.least two
'Mary doesn't have three children, but at least she has two.'

We thus have conclusive evidence that optatives employ concessive *at least* (as opposed to epistemic *at least*). The next section now addresses the role of concessive *at least* in optatives.

### 6.3.5 Mitigating Expressives: On the role of *At Least* in Exclamations

What is the role of concessive *at least* in optatives? In this section, I argue that it essentially acts as a modulator, just as *only* does (and *doch*, as we will see). It conveys the

information that the speaker considers the expressed proposition satisfactory, but not optimal. This follows from the 'settling for less' component of the semantics of concessive *at least* that Nakanishi & Rullmann (2009) observe, cf. (760).

(760) $\|\text{at least}_C\|^{g,c} = \lambda S.\lambda p$ :

S is a bouletic ordering ∧ BOULETIC

"**Presupposition 1:** The contextually salient scale is a bouletic scale."

$\exists r \in g(C)\ [r >_S p] \wedge \exists q \in g(C)\ [p >_S q]$ . SECOND CHOICE

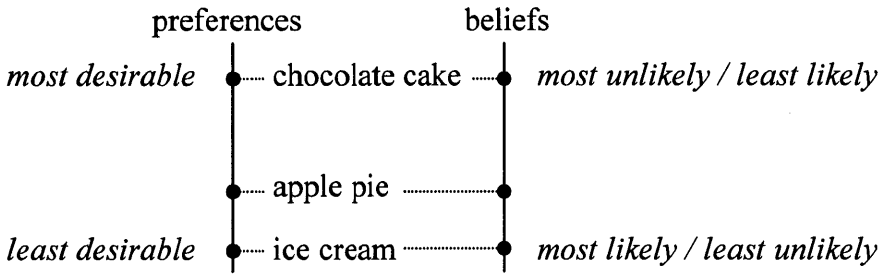
"**Presupposition 2:** With respect to the relevant preferences, p is good but not optimal."

p IDENTITY

"**Truth Conditional Content:** Concessive *at least* is truth-conditionally vacuous."

Focusing on German, we can easily illustrate that this component is present. Consider the following scenario from Villalta (2007); Victoria (the speaker) hopes that Sofia will bring chocolate cake to her picnic. Victoria's second choice is apple pie and she really hates ice cream.

(761)




(adapted from Villalta 2007:102+103)

What the *optative-at-least-as-concessive-at-least* analysis predicts is that we should be able to use *wenigstens* 'at least' if and only if the wish that we express is for the second choice, namely apple pie. By virtue of the fact that a better option must be available, it should not be possible to use *wenigstens* 'at least' to express a wish for the first choice, which would be the optimal scenario.

This is indeed the case. As shown in (762), *wenigstens* 'at least' can be used when we express a wish for apple pie, (762b), but not when we express a wish for chocolate cake, (762a). Naturally, a wish for vanilla ice cream is independently deviant, (762c).

(762)a. Ach, wenn sie doch / ?nur / **#wenigstens** einen Schokokuchen gebracht hätte!
oh if she doch only at.least an chocolate.cake brought had
'If only she had brought an chocolate cake!'

b. Ach, wenn sie ??doch / nur / **wenigstens** einen Apfelkuchen gebracht hätte!
oh if she doch only at.least an apple.cake brought had
'If only she had brought an apple cake!'

c. Ach, wenn sie #doch /#nur / **#wenigstens** Vanilleeis gebracht hätte!
oh if she doch only at.least vanilla.ice.cream brought had
'If only she had brought vanilla ice cream!'

Note that, as predicted by my approach, the contributions of different particles add up (they do not cancel each other). So, any optative that contains *wenigstens* 'at least' ends up being a 'compromise optative' where the speaker is settling for less. This accounts for the fact that in (763a+b) only a wish for an apple cake is permissible and not a wish for chocolate cake.

(763)a. Wenn sie **doch wenigstens** einen Apfelkuchen/#Schokokuchen gebracht hätte!
if she doch at.least an apple.cake/#chocolate.cake brought had
'If only she had brought an apple pie/chocolate cake!'

b. Wenn sie **nur wenigstens** einen Apfelkuchen/#Schokokuchen gebracht hätte!
if she only at.least an apple.cake/#chocolate.cake brought had
'If only she had brought an apple pie/chocolate cake!'

How is the 'settling for less' presupposition of *wenigstens* 'at least' satisfied in an optative? It follows from the semantics of concessive *at least* that there must be a salient proposition in the context that is more desirable to the speaker. This accounts for the fact that *at-least*-optatives are typically perceived to be deviant in an out-of-the-blue context.

(764) Wenn ich **doch / nur** / **#wenigstens** reich wäre!
if I doch only at.least rich were
'If only I were rich!'

The salient *more preferable* proposition can be introduced overtly, e.g. by means of a separate optative, as shown in (765) or, a more natural example, in (766).

(765) a. Ach, wenn ich **doch** **nur** allmächtig und berühmt wäre!
oh if I doch only omnipotent and famous were
'If only I omnipotent and famous!'

b. Oder wenn ich **wenigstens** reich wäre!
or if I at.least rich were
'Or at least if only I were rich!'

(766) Ach, wenn sie **doch** einen Schokokuchen gebracht hätte!
oh if she doch an chocolate.cake brought had
'If only she had brought an chocolate cake!'

Oder wenn sie **wenigstens** einen Apfelkuchen gebracht hätte!
or if she at.least an apple.cake brought had
'Or if at least she had brought an apple cake!'

However, while the better alternative can be overtly given, it is sufficient for such a better proposition to be independently salient in the context, as shown in (767).

(767) Erst viertel auf zehn? ... Mir kommt vor, ich sitz' schon drei Stunden in dem Konzert. Ich bin's halt nicht gewohnt ... Was ist es denn eigentlich? Ich muß das Programm anschauen ... Ja, richtig: Oratorium! Ich hab' gemeint: Messe. Solche Sachen gehören doch nur in die Kirche! Die Kirche hat auch das Gute, daß man jeden Augenblick fortgehen kann. – **Wenn ich wenigstens einen Ecksitz hätt'!** – Also Geduld, Geduld! Auch Oratorien nehmen ein End'! Vielleicht ist es sehr schön, und ich bin nur nicht in der Laune.

'Only quarter to ten? ... I feel like I've been sitting in this concert for three hours. Well, I'm not used to it ... What is it anyway? I'll have to look at the program ... Yes, of course: An oratorio! I meant: A mass. Such things belong into a church! A church also has the advantage that one can leave at any time. – **If at least I had a corner seat!** – So, patience, patience! Even oratorios end at some stage! Maybe it's very nice, and I'm just not in the mood.'

(A. Schnitzler: *Leutnant Gustl*)

At this point we can now ask: How does *wenigstens* 'at least' act as a licensor of optativity? As with *nur* 'only', I argue that *wenigstens* 'at least' has two functions: First, it can eliminate competing readings for an ambiguous utterance. Second, by virtue of its inherently bouletic and preference-oriented nature, it can make an optative reading salient. Example (768), which is, in the absence of *wenigstens* 'at least' ambiguous between an optative interpretation and a polar exclamative interpretation, is disambiguated by virtue of *wenigstens* 'at least'.

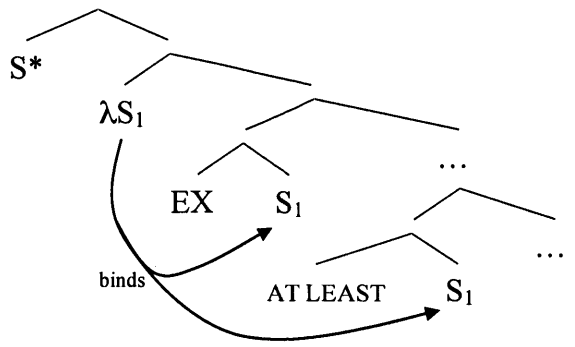
(768) a. **Hätte** die dem (doch) **wenigstens** tatsächlich das Buch gegeben!
had$_{subj}$ she him doch at.least indeed the book given
*lit.* Had$_{subjunctive}$ she at least indeed given him the book!

b. 'If only she had at least given him the book!' *opt.*

c.* '[It's shocking that] she would have at least given him the book!' *p.exc.*

This follows if *wenigstens* 'at least' has a scalar argument with a definedness condition that the contextually salient scale is a bouletic scale and the scales on *EX* and AT LEAST must be co-bound, as in (769), cf. section 6.2.5. Given that concessive AT LEAST requires its scale to be bouletic, the scale on *EX* will also end up being bouletic, eliminating a polar exclamative reading (under which *EX* combines with an inverse likelihood scale). Again, AT LEAST "licenses" optativity by virtue of eliminating competing readings. This further strengthens a view under which prototypical optative elements license optativity via a conspiracy (and not directly).

(769)



Note that the proposal in (769) supports the idea above that (467) and (468b) are factive optative clauses, as they are exclamations that contain *wenigstens* 'at least'.

### 6.3.6 Interim Summary

The goal of this section was to show that the connection between AT LEAST and optativity is cross-linguistically wide-spread and follows from a uniform analysis of optative *at least* and concessive *at least*. The function of *at least* in optatives is to show a willingness to compromise and at the same time to emphasize the speaker's desperation in the actual situation (which is undesirable). This is achieved by virtue of the *settling for less* component of concessive *at least*.

## 6.4 *Wenn ich doch könnte...* – A uniform approach to the particle *doch*

The third prototypically optative particle that I discuss in this dissertation is German *doch*, which also licenses optativity, as shown in the following example (contrasting it with Dutch *toch*, a close counterpart).

(770) a. Als Jan **toch** eens naar Marie had geluistered! *Dutch*[129]
if Jan TOCH once to Marie had listened
'If only Jan had listened to Marie!'

b. Wenn Otto **doch** auf seine Mutter gehört hätte! *German*
if Otto DOCH to his mother listened had
'If only Otto had listened to his mother!'

(771) a. Je kunt **toch** nergens heen. *Dutch*
you can TOCH nowhere to
'You can't go anywhere, for sure.' (de Vriendt et al. 1991)

b. Du kannst **doch** nirgends hin. *German*
you can DOCH nowhere to
'You can't go anywhere, for sure.'

---

[129] Dutch differs from German in that *toch* only occurs in optatives in combination with *eens* (literally 'once'). De Vriendt et al. (1991) compare Dutch *eens* to German *mal*, which also occurs in optatives (typically in non-counterfactual variants), cf. Scholz (1991). I will not discuss this in detail here.

While German *doch* and Dutch *toch* may seem rather exotic, I conjecture that the contrast meaning that they convey is rather typical for optatives. For instance, we have already seen that the Polish concessive *at least*, *chociaż* 'at least' also has a use as a conjunction/complementizer, meaning 'although'.

(772) a. Gdyby / Żeby Jan **chociaż** (po)słuchał Marii! *Polish*
if if John at.least listen.(perf.)pret.3sg.m Mary.gen.nom.f
'If at least Jan had listened to Mary!'

b. Jan nie dostał pracy, **chociaż** chiał.
John not got job although tried
'John didn't get the job, although he tried.'

Similarly, German *doch* has a use as a complementizer/conjunction, meaning roughly 'however'.

(773) Hans hat den Job nicht gekriegt, **doch** er hat es versucht. *German*
Hans has the job not gotten doch he has it tried
'Hans didn't get the job; however, he did try.'

For now, I will focus on German, but I maintain that the analysis in this section may be applicable to other languages as well. The analysis I argue for is shown in (774).

(774) $||\text{doch}_C||^{g,c,w} = \lambda p :$

$\exists q \in g(C)\ [p \neq q\ \&\ \neg[p(w) \wedge q(w)]] \wedge$ CONFLICT

"**Presupposition 1:** The modified proposition is in conflict with a salient alternative."

$p \cap \text{Dox}_{\text{speaker}}(w) = \varnothing \vee \neg p \cap \text{Dox}_{\text{speaker}}(w) = \varnothing\ .$ FAMILIARITY

"**Presupposition 2:** The modified proposition is resolved (as true or false)."

$p$ IDENTITY

"**Truth Conditional Content:** *doch* is truth-conditionally vacuous."

(based on Grosz 2010, Kratzer & Matthewson 2009)

The next section reviews facts on *doch* in declarative statements. I then proceed to posit a uniform analysis for *doch* in optatives and declaratives.

### 6.4.1 Truth and Conflict – the role of unstressed *doch*

The discussion in this section is based on Grosz (2010, 2011). I will only review some aspects of the discussion in Grosz (2010, 2011) and I refer the reader to these papers for additional information. First of all, we are only interested in the unstressed version of German *doch*, cf. Abraham (1991), Bárány (2009), Doherty (1985, 1987), Jacobs (1991), Karagjosova (2001, 2004, 2008), Lindner (1991), Ormelius-Sandblom (1997), Repp (2009), Thurmair (1989) and Zeevat (2003), as this is the element we find in optatives.

(775) a. Wenn Otto **doch** auf seine Mutter gehört hätte! *German*
if Otto DOCH to his mother listened had
'If only Otto had listened to his mother!'

b. ?#Wenn Otto **DOCH** auf seine Mutter gehört hätte!
if Otto DOCH to his mother listened had
'If only Otto had listened to his mother!'

It can be shown that unstressed *doch* in declaratives has two functions; the first function is to mark its complement proposition as 'familiar / old / given / shared / uncontroversial' and the second function is to convey some notion of 'contrast / correction'. In this sense, Grosz (2010) argues that we can approximate the meaning of *doch* as in (776).

(776) For any sentence $p$, $||\text{doch } p||^c$ (where c is the utterance context) is only defined if:

a. The speaker in $c$ takes $p$ to be firmly established in $w_c$ and therefore assumes that it is safe to discard $\neg p$ as a possible answer to the question of whether $p$ or $\neg p$ holds in $w_c$.

(based on Kratzer & Matthewson's 2009 meaning of *ja*)

b. There is a contextually salient proposition $q$, such that

i. $q$ is a focus alternative of $p$

ii. the current utterance context $c$ entails $\neg[p \textit{ and } q]$

(cf. Abraham 1991, Bárány 2009, Doherty 1985, Ormelius-Sandblom 1997)

If defined, $||\textit{doch } p||^c = ||p||^c$.

(Grosz 2010)

The factivity component of *doch* in declaratives, (776a), can be inferred from contrasts such as the following. The particle *doch* (on a par with German *ja*) is used in declaratives whenever the modified proposition is old information and presupposed to be true.

(777) a. *Context: Speaker and hearer are both well aware that the hearer has been to Paris before, and the speaker wants to make this fact salient in order to follow up on it.*

Du warst ja / **doch** / #DOCH / #Ø schon in Paris.
you were ja doch #DOCH #Ø already in Paris
'You've [ja / doch / #DOCH / #Ø] already been to Paris.'

b. *Context: The hearer is an amnesiac and believes that she has never been to Paris. The speaker doesn't know whether the hearer has been, and discovers an old flight ticket to Paris with the hearer's name on it.*

Du warst #ja / #**doch** / DOCH / Ø schon in Paris.
you were #ja #doch DOCH Ø already in Paris
'You've [#ja / #doch / DOCH / Ø] already been to Paris.'

(Grosz 2010)

The contrast/conflict component of *doch*, (776b), manifests itself in examples such as the following.

(778) a. Jan muss nicht kochen. Er hat **doch** abgewaschen.
Jan needs not cook he has doch washed.up
'Jan doesn't need to cook. He [doch] washed up.'

b. *presuppositions triggered by doch:*

i. The speaker takes [$_p$ Jan washed up] to be firmly established in $w_c$.

ii. There is a contextually salient focus alternative of $p$, namely [$_q$ Jan needs to cook], and the current utterance context entails $\neg$ [$_{p\&q}$ Jan washed up and Jan needs to cook]

(Grosz 2010)

(779) a. Context: I wake up on a Sunday at 6AM, because the neighbors are drilling.

Heute ist **doch** Sonntag!
today is doch Sunday
'Today is [doch] Sunday!' (roughly: 'But today is Sunday!')

b. *presuppositions triggered by doch:*

i. The speaker takes [$_p$ today is Sunday] to be firmly established in $w_c$.

ii. There is a contextually salient focus alternative of $p$, namely [$_q$ today it's ok to drill], and the current utterance context entails $\neg$ [$_{p\&q}$ today is Sunday and today it's ok to drill]

(Grosz 2010)

Grosz (2010) argues that *doch* conveys *contradictoriness* between the modified proposition $p$ and the salient alternative $q$ (rather than simple contrast). The idea is that a *doch* utterance will always pick the most salient focus alternative from the immediately preceding context, and that a sequence of *¬(q) -- doch(p)* will always be understood as *¬(q) because doch(p),* where $q$ is the salient alternative for $p$. This assumption is motivated by our intuitive understanding of sequences such as (778), though we currently do not have a theory of discourse flow that explains for this connection. Crucially, the idea is that unstressed *doch* is illformed in (780), because the presupposition that *Hans cannot be both atheist and liberal/green* fails in a context where we actually expect that *someone (e.g. Hans) who is an atheist is also liberal/green.* At this point, it is worth pointing out that the extension to optatives also works if *doch* expresses simple contrast as opposed to contradictoriness. I will thus no longer dwell on this issue here.

(780) a. So gut wie jeder Atheist ist liberal und grün. Hans ist die Ausnahme.
as good as every atheist is liberal and green Hans is the exception

Er ist nicht liberal. Er ist nicht grün. -- Er ist (#**doch**) Atheist!
he is not liberal he is not green he is doch atheist

'As good as every atheist is liberal and green. Hans is the exception. He is not liberal. He is not green. -- He is (#doch) an atheist!'

b. *problematic presuppositions triggered by doch:*

i. The speaker takes [$_p$ Hans is an atheist] to be firmly established in $w_c$.

ii. There is a contextually salient focus alternative of $p$, namely [$_q$ Hans is liberal and green], and the current utterance context entails $\neg$ [$_{p\&q}$ Hans is an atheist and Hans is liberal and green]

(Grosz 2010)

In brief, what we observe is that *doch* has a mediating role with respect to established truth (i.e. what the speaker takes to be established) and conflict (i.e. some proposition in the context that contradicts what the discourse participants should assume to be correct, according to the speaker).

Crucially, at first sight *doch* in optatives seems fundamentally distinct from *doch* in declaratives. While declarative *doch* implies the truth of the modified proposition (it is veridical), (781a), optative *doch* has exactly the inverse property: It implies the falsity of the modified proposition, (781b). One may thus generalize to the worst case scenario and posit a specialized "optative *doch*", which only occurs in optatives.

(781) a. Context: I wake up on a Sunday at 6AM, because the neighbors are drilling.

Heute ist **doch** Sonntag!
today is doch Sunday
'Today is [doch] Sunday!' (roughly: 'But today is Sunday!')

⇒ it is presupposed to be **true** that today is Sunday

b. Ach, wäre heute **doch** Sonntag!
oh were today doch Sunday
'Oh, if only today were Sunday!'

⇒ it is presupposed to be **false** that today is Sunday

Grosz (2011) argues that a unified analysis for declarative *doch* and optative *doch* is nevertheless desirable, and proposes that optatives and declaratives are different speech acts. Consequently, declarative *doch* presupposes that the modified proposition is established to be true, whereas optative *doch* presupposes that the modified proposition is established to be desired by the speaker. In the following section, I pursue a different analysis, based on a paradigm not considered in Grosz (2011). The idea is that *doch* is always the same element and it simply presupposes non-contingency, i.e. it presupposes that the modified proposition is *either* true *or* false, but it cannot be unresolved for *doch* to be well-formed.

### 6.4.2 *Doch* or not *Doch*? – On the benefits of a uniform approach

I propose that unstressed *doch* uniformly has the analysis in (782), where the conflict presupposition is more or less kept the same as in the preceding section. The familiarity component has, however, been weakened to a disjunction: What is relevant for *doch* to be used is that the modified proposition must be either true or false according to the speaker; *doch* cannot be used if it is unresolved whether its complement proposition is true.

(782) $||\text{doch}_C||^{g,c,w} = \lambda p :$

$\exists q \in g(C)\ [p \neq q\ \&\ \neg[p(w) \wedge q(w)]] \wedge$ CONFLICT

"**Presupposition 1:** The modified proposition is in conflict with a salient alternative."

$p \cap \text{Dox}_{\text{speaker}}(w) = \varnothing \vee \neg p \cap \text{Dox}_{\text{speaker}}(w) = \varnothing\ .$ FAMILIARITY

"**Presupposition 2:** The modified proposition is resolved (as true or false)."

$p$ IDENTITY

"**Truth Conditional Content:** *doch* is truth-conditionally vacuous."

(based on Grosz 2010, Kratzer & Matthewson 2009)

What is the evidence for the definition in (782)? We have already seen that the conflict component can be observed in declaratives; it is evident that optatives always involve a conflict between what is the case (or what might be the case) and what is desired.

The burden of proof is thus on the familiarity component. What is the evidence for such a disjunctive statement of familiarity? The crucial evidence stems from a broader perspective on exclamations, like the one I have adopted. Looking at *dass*-exclamations, we observe that *doch* is good in counterfactual optatives, (783a), and in factive polar exclamatives, (783b); contrastively, *doch* is ill-formed in non-counterfactual non-factive optatives, (783c). This follows if *doch* requires the modified proposition to be non-contingent, i.e. to be established as either true or false (in the utterance context).

(783) a. Dass Hans **doch** nur rechtzeitig gekommen wäre!
that Hans doch only in.time come were
'If only Hans had come in time!'

b. Dass Hans **doch** glatt rechtzeitig gekommen ist!
that Hans doch outright in.time come is
'[I'm surprised] that Hans came in time!'

c. Dass Hans (***doch**) nur rechtzeitig gekommen ist!
that Hans *doch only in.time come is
'If only Hans came in time!'

This observation is independent from the shape of the modified utterance. V1-variants also allow for *doch*. (We have already seen that non-counterfactual non-factive optatives do not allow for a V1-variant.)

(784) a. Wäre Hans **doch** nur rechtzeitig gekommen!
were Hans doch only in.time come
'If only Hans had come in time!'

b. Ist Hans **doch** glatt rechtzeitig gekommen!
is Hans doch outright in.time come
'[I'm surprised] that Hans came in time!'

c.* Ist Hans **doch** nur rechtzeitig gekommen!
is Hans doch only in.time come
'If only Hans came in time!'

A unified approach also allows us to account for the attested distribution of *doch* in *if*-clauses. The particle *doch* is only possible in *if*-clauses that either presuppose that the modified proposition is true (or may be true), i.e. in so-called factual conditionals, (785b), or that the modified proposition is false, e.g. in optatives, (785c). It should be pointed out that this truth/falsity presupposition is a necessary condition for acceptability of *doch* in an *if*-clause, but not a sufficient condition. The particle *doch* is nevertheless impossible in canonical subjunctive/counterfactual hypothetical conditional *if*-clauses (cf. Coniglio 2009, who treats *doch* as a root clause phenomenon; see also Bayer 2001). For now, I conjecture that the impossibility of *doch* in such *if*-clauses derives from a failure of *doch* to access the speaker's knowledge states in such a (structurally low) position[130,131].

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[130]As a consequence, *doch* must differ from $Mood_{CF}$ in this respect, which is licensed in such *if*-clauses.
[131]Alternatively, the presupposition of truth or falsity that I posit may derive from a more general presupposition that the truth value of the modified proposition is not under discussion (Kratzer &

(785) a. Wenn Karl **doch** gewonnen hätte … dann hätten wir gefeiert!
if Karl doch won had then had we celebrated
'If Karl [doch] had won … then we would have celebrated!'

b. *factual conditional reading:*

Since in certain counterfactual circumstances Karl would have won (which we all know to be true), we would have celebrated under said circumstances!

c. *counterfactual optative reading*[132]*:*

I wish Karl had won (which we all know to be false)! We would have celebrated!

(Grosz 2011)

I have shown that a weak FAMILIARITY component, as well as a CONFLICT component, seem to be present in the semantics of unstressed *doch* both in optative and non-optative utterances. It thus appears desirable, both for empirical reasons and for reasons of parsimony, to assume a uniform entry for *doch*, which is compatible with both utterance types.

### 6.4.3 Anguish, Strength and Desirability: On the role of *doch* in Exclamations

What does *doch* contribute to an optative? In contrast to *nur* 'only' and *wenigstens* 'at least', *doch* does not eliminate a polar exclamative reading. Recall that (786) has both an optative reading and a polar exclamative reading.

(786) a. **Hätte** die dem tatsächlich das Buch gegeben!
$had_{subj}$ she him indeed the book given
*lit.* $\underline{Had_{subjunctive}}$ she only indeed given him the book!

b. 'If only she had given him the book!' *opt.*

c. '[It's shocking that] she would have only given him the book!' *p.exc.*

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Matthewson 2009) – this is possibly not satisfied in hypothetical counterfactual conditionals, which are typically used to discuss *what-if* situations. See also Grosz (2011) for an alternative perspective on this issue.

[132] This example glosses over the fact that I have argued the optative variant of (785a) to involve two separate, possibly unconnected utterances, reflected by a perceived intonational break in the locus of '…'

By contrast, *nur* 'only' and *wenigstens* 'at least' disambiguate towards an optative reading, as shown in (787) and (788).

(787) a. **Hätte** die dem **nur** tatsächlich das Buch gegeben!
had$_{subj}$ she him only indeed the book given
*lit.* Had$_{subjunctive}$ she only indeed given him the book!

b. 'If only she had given him the book!' *opt.*

c.* '[It's shocking that] she would have only given him the book!' *p.exc.*

(788) a. **Hätte** die dem **wenigstens** tatsächlich das Buch gegeben!
had$_{subj}$ she him at.least indeed the book given
*lit.* Had$_{subjunctive}$ she at least indeed given him the book!

b. 'If only she had at least given him the book!' *opt.*

c.* '[It's shocking that] she would have at least given him the book!' *p.exc.*

The particle *doch* cannot do so. In (789), the optative reading and the polar exclamative reading are still both available.

(789) a. **Hätte** die dem **doch** tatsächlich das Buch gegeben!
had$_{subj}$ she him doch indeed the book given
*lit.* Had$_{subjunctive}$ she doch indeed given him the book!

b. 'If only she had at least given him the book!' *opt.*

c. '[It's shocking that] she would have at least given him the book!' *p.exc.*

In fact, we find that *doch* sometimes disambiguates towards a polar exclamative reading when the competing optative reading is non-counterfactual.

(790) a. Dass Hans jetzt tatsächlich rechtzeitig gekommen ist!
that Hans now indeed in.time come is
*lit.* 'That Hans came in time now!'

b. 'If only Hans did indeed come in time now!' *opt.*

c. '[It's remarkable] that Hans did indeed come in time now!' *p.exc.*

(791) a. Dass Hans jetzt **doch** tatsächlich rechtzeitig gekommen ist!
that Hans now doch indeed in.time come is
*lit.* 'That Hans came in time now!'

b.* 'If only Hans did indeed come in time now!' *opt.*

c. '[It's remarkable] that Hans did indeed come in time now!' *p.exc.*

This comes with some surprise, given that *doch* is prototypical and frequent in (counterfactual) optatives (cf. Scholz 1991). So what is the function of *doch* in optatives (and exclamations quite generally)? What we observe is the following contrast. While optatives and polar exclamatives are compatible with unstressed *doch*, degree exclamatives are incompatible with this particle.

(792) a. **Hätte** der **doch** tatsächlich getanzt!
$had_{subj}$ he doch indeed danced
*lit.* $\underline{Had_{subjunctive}}$ he [doch] indeed danced!

b. 'If only he had indeed danced!' *opt.*

c. '[It's shocking that] he would have danced!' *p.exc.*

(793) a. Mensch, **hätte** der (#**doch**) (aber/vielleicht) (#**doch**) getanzt!
man $had_{subj}$ he #doch but/maybe #doch danced
*lit.* $\underline{Had_{subjunctive}}$ he [but/maybe] danced!

b. 'It's amazing how he would have danced!' *degree exclamative*

Unfortunately, it is difficult to construct minimal pairs, as V1-polar exclamatives seem to require some element like *tatsächlich* 'indeed' or *glatt* 'outrightly' (cf. Scholz 1991), while V1-degree exclamatives disallow for such elements. The closest to a minimal pair that we can construct is given in (794). Here, (794a) with *aber* 'but' only has a degree exclamative reading, whereas (794b) with *doch* only has a polar exclamative reading.

(794) a. Hat der **aber / #doch** wirklich nochmal Schwein gehabt! *degree excl.*
has he but #doch really again pig had
'Boy, was he lucky again!'
(adapted from http://meinews.niuz.biz/d-t584936p2.html)

b. Hat der **doch / #aber** wirklich nochmal Schwein gehabt! *polar excl.*
has he doch #but really again pig had
'[I'm shocked that] he was lucky again!'

It is thus clear that unstressed *doch* is only ever compatible with a polar exclamative or optative reading and never with a degree exclamative reading.

I conjecture that the main function of *doch* in exclamations is to emphasize a polar contrast: In optatives, there is a clear-cut contrast between what is desired and the negation thereof, namely that which is the case. This is illustrated in (795) for an optative.

(795) **Hätte** der Otto **doch** **nur** getanzt!
$had_{subj}$ he Otto doch only danced
*lit.* $\underline{Had}_{\underline{subjunctive}}$ Otto [doch] indeed danced!
what is desired: *Otto danced.*
what is the case: ¬*Otto danced.*

On analogy, a polar exclamative expresses a polar opposition between what is the case and what was to be expected, as shown in (796).

(796) **Hat** der Otto **doch** **glatt** getanzt!
has he Otto doch outright danced
*lit.* Otto [doch] indeed danced!
what is the case: *Otto danced.*
what would have been expected: ¬*Otto danced.*

We can conjecture that degree exclamatives simply fail to mark a polar contrast, which is roughly illustrated in (797): The surprising contrast is not between $p$ and $\neg p$, but between a degree that is surprisingly high and a set of degrees that would have been less surprising.

(797) **Hat** der Otto (#**doch**) (**aber / vielleicht**) getanzt!
has he Otto doch but maybe danced
*lit.* (Boy,) did Otto dance!
what is the case: *Otto danced to a surprisingly high degree d*
what would have been expected: *Otto danced to some less surprising degree d'*

In this sense, the function of *doch* is to emphasize a polar contrast, and specifically, in optatives, it is to emphasize the contrast between what is the case and what is desirable. This is consistent with the assumption that *doch* requires its complement proposition to be either false or true: It may be pragmatically suboptimal to emphasize conflict between something that may or may not be the case and its polar opposite.

### 6.4.4 Interim Summary

The goal of this section was to complete our overview on the prototypical particles that we find in optatives by investigating German *doch* (the analysis for which should also carry over to Dutch *toch*). I proposed that a uniform analysis is possible and desirable for unstressed *doch* in declaratives as well as in optatives. The core components of *doch* are the marking of its complement proposition as non-contingent (i.e. true or false) and the presupposition that this proposition is in conflict with some salient alternative (often its polar opposite).

## 6.5 Elementary Particles – On Cues and Pragmatic Resolution

Concluding our section on optative particles, I would like to sketch a generalized analysis of the function of particles in speech act resolution. Specifically, what we find is that there are different particles associated with different types of utterances. The focus so far was on *doch*, *nur* 'only' and *wenigstens* 'at least' and their cross-linguistic counterparts. What we observed was that these particles both *license optatives* and disambiguate between different speech acts. Their optativity-licensing property is illustrated in (798). As indicated, (798) is deviant in the absence of any prototypical particle.

(798) Wäre ich #(**doch** / **nur** / **wenigstens**) reich!
were I doch only at.least rich
'If only I were rich!'

Looking at other constructions in a particle-rich language like German, we find other particles that have similar functions. In V1-degree exclamatives, we find *aber* 'but' and *vielleicht* 'maybe', which help license the exclamative reading, (799a). In adversative constructions, which express a negative evaluation, we find *schon* 'already' and *auch* 'also', which also contribute to the well-formedness of these constructions, (799b+c).

(799) a. Mensch, bist du **aber / vielleicht** blöd! *degree exclamative*
man are you but maybe stupid
'Boy, are you ever stupid!'

b. Mein Gott, wenn ich das **schon** höre! *schon adversative*
my God when I that already hear
'[I get angry] when/if I hear this!'

c. Mensch, wenn du **auch** so unfreundlich bist! *auch adversative*
man if you also so unfriendly are
'[It is bad] that/if you're so unfriendly!'

We have already seen how such particles may help disambiguate between different readings for one and the same utterance. So, how do such particles help license different speech acts?

As I have argued in detail for *doch*, *nur* 'only' and *wenigstens* 'at least', such particles are typically truth-conditionally vacuous[133]. They convey semantic content at a non-truth-conditional level. I propose that their speech act licensing function comes about as follows. First, the particles must be compatible with a particular utterance type, and make a felicitous contribution. As we have seen, *nur* 'only' in optatives marks that the desired proposition is low on the speaker's preference scale, and thus makes the contribution of marking modesty and desperation, i.e. the speaker conveys that 'this is really not much to ask for'. Similarly, *wenigstens* 'at least' in optatives reinforces the bouletic orientation of the utterance and conveys that the speaker is settling for less, i.e. the speaker conveys that she is willing to compromise. Finally, *doch* in optatives reinforces the polar orientation of the utterance (i.e. the contrast between what is desired

[133] It is easy to see how this extends at least to *schon* 'already' in (799b) and to *auch* 'also' in (799c).

and what is the case); by using *doch*, the speaker emphasizes the conflict between wish and reality. Each of these particles thus makes a contribution to an optative, which may be characterized in terms of reinforcement and strengthening. By using these particles, the optative becomes more expressive.

Second, the particles in question will typically act as disambiguators. Not all utterance types are equally compatible with all types of particles. This gives rise to a situation where accumulating particles is a means of cumulatively disambiguating. Let me illustrate. Example (800) is multiply ambiguous, allowing for four conceivable readings. (For the sake of argumentation, I assume that all four readings are equally well-formed, which is naturally not the case – a fact that derives from the present discussion.)

(800) a. Hätte es geregnet...
had it rained
*lit.* 'Had it rained...'

b. *conditional antecedent reading:* Had it rained, I would have stayed home.

c. *optative reading:* I wish it had rained.

d. *polar exclamative reading:* I'm surprised that it would have rained.

e. *degree exclamative reading:* Boy, would it have rained.

The particle *doch* is only possible in clauses that directly access the speaker's doxastic state (via $\text{Dox}_{\text{speaker}}(w)$). While this is possible in a factual conditional antecedent, it is not possible in a hypothetical conditional antecedent (cf. Coniglio 2009). Crucially, conditionals with conditional inversion do not seem to allow for a factual reading (cf. Reis & Wöllstein 2010); therefore, placing *doch* into the clause in (800) eliminates the reading as a conditional antecedent. Similarly, we have seen that *doch* is not compatible with a degree exclamative reading. By adding *doch*, we thus reduce the possible readings to polar exclamative and optative, as shown in (801).

(801) a. Hätte es doch geregnet...
had it doch rained
*lit.* 'Had it rained...'

b.* *conditional antecedent reading:* Had it rained, I would have stayed home.

c. *optative reading:* I wish it had rained.

d. *polar exclamative reading:* I'm surprised that it would have rained.

e.* *degree exclamative eading:* Boy, would it have rained.

If we now add *nur* 'only', the only remaining reading is an optative reading, as we have seen that polar exclamative readings are incompatible with $\text{ONLY}_2$.

(802) a. Hätte es doch nur geregnet...
had it doch only rained
*lit.* 'Had it rained...'

b.* *conditional antecedent reading:* Had it rained, I would have stayed home.

c. *optative reading:* I wish it had rained.

d.* *polar exclamative reading:* I'm surprised that it would have rained.

e.* *degree exclamative eading:* Boy, would it have rained.

We can thus show transparently how accumulation of particles is a means to disambiguate potentially ambiguous utterances. But how could particles ever become obligatory (or quasi-obligatory)? I argue that this is a conspiracy, which can be captured as follows.

Given that particles are a reliable means to disambiguate and single out a particular desired reading, we find ourselves in a situation that can be described as follows (first discussed in Grosz 2011). If we make standard assumptions on rational discourse participants (cf. Lewis's 1969 *signaling games*), particles can be viewed as *speech act cues* (or, more neutrally: *cues for different utterance types*). In many situations, a speaker has to decide whether to use cues (e.g. for optativity) and the hearer has to decide how to interpret an utterance that lacks such cues (and is thus underspecified for different possible readings). In any such situation, the most successful strategies on part of the speaker and hearer are those where the speaker always uses one or more of the appropriate cues and the hearer always interprets cue-less utterances as the most

unmarked ones. In the case of (803), different cues can give rise to different (marked) readings, shown in (804). However, there is no designated cue for a conditional reading.

(803) a. Wäre ich reich...
were I rich
*lit.* 'Were I rich...'

b. *conditional antecedent reading:* Were I rich, I would travel the world.

c. *optative reading:* I wish I were rich.

d. *polar exclamative reading:* I'm surprised that I would be rich.

e. *degree exclamative eading:* Boy, would I be rich.

(804) a. Wäre ich **doch** **tatSÄCHlich** reich! *only polar exclamative*
were I doch indeed rich
'[I'm surprised] that I would indeed be rich.'

b. Wäre ICH **vielleicht** reich! *only degree exclamative*
were I maybe rich
'Boy, would I be rich!'

c. Wäre ich **doch** **nur** REICH! *only optative*
were I doch only rich
'If only I were rich!'

It thus follows that the most successful strategy for a speaker will be to use these cues whenever applicable, as the hearer will revert to the unmarked (conditional) reading in the absence of any cue. This accounts for the perceived deviance of (805): The hearer will always understand this to be a fragmentary conditional and thus interpret it as an incomplete utterance.

(805) #Wäre ich reich!
were I rich
*lit.* 'Were I rich...'

This informal analysis can be formalized in terms of a *signaling game* (Lewis 1969:130-133), sketched as follows. Assume that speech act cues are costly and thus only used when this increases the expected utility for the speaker and/or the hearer[134]. If we assume that utterances like (803) and (805) are truly ambiguous between at least two readings (one of which may be the unmarked one), the following consequence arises. If the context biases a reading strongly enough to practically eliminate the alternative reading (which we could implement in terms of prior probabilities), then no cues are necessary and, due to their costliness, cues are in fact dispreferred. This accounts for the marginal possibility of cue-less optatives. However, whenever there is no such powerful bias in favor of one reading or the other, it will always be preferable on part of the speaker to use speech act cues in order to maximize successful disambiguation and thus maximize successful communication. In other words, the prototypicality of prototypical optative particles is a consequence of a conspiracy, which stems from the disambiguating effect of these particles in conjunction with strategies to maximize successful communication.

Similar considerations apply to other areas where particles are used. For instance, imperatives (which typically have a command reading and a permission reading) can be disambiguated towards a permission reading in German by means of the particle *ruhig*.

(806) a. Komm herein! *German*
come in
'[I order you to] come in! / [I allow you to] come in!'

b. Komm **ruhig** herein!
come ruhig in
'[I allow you to] come in! / *[I order you to] come in!'

It is a direct prediction of the present proposal (and, may I say, quite intuitive) that *ruhig* is used more often when the context does not independently disambiguate between a command intention and a permission intention on part of the speaker. Unfortunately, it is beyond the scope of the present project to explore whether this prediction carries out.

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[134] I assume that both speaker and hearer aim at maximizing successful communication and at the same time aim at minimizing effort in production and in parsing.

# 7. Summary and Conclusion

In this dissertation, I proposed an analysis for so-called optative constructions that aimed at answering three separate questions. First, how does desirability arise in optatives? Second, how is mood information encoded and what is its role in determining the form of optative utterances? Third, what is the role of prototypical optative particles?

I answered the first question by positing a generalized exclamation operator, which not only accounts for optatives, but also for so-called polar exclamatives. The idea that I presented is that the exclamation operator forms a direct link between grammatical expressions and emotional/affective behavior; by virtue of this exclamation operator, the speaker directly expresses an emotion rather than describing it.

I proposed an answer for the second question that assumes that semantic mood (such as counterfactuality and factivity) is encoded in a Mood head, the content of which co-determines both morphological mood marking on the finite verb and the overt material that we find in C. Such a view allows us to account for different types of exclamations in a uniform way, irrespective of their different semantic mood and different syntactic form.

For the third question, I outlined a system that assumes that different prototypical particles are truth-functionally vacuous presupposition triggers that have three different functions. First, by virtue of their core lexical semantics, they modulate the meaning that the speaker conveys when uttering a sentence; in the case of exclamations, their main function is to further specify the emotion that is conveyed, e.g. by adding a notion of desperation or willingness to compromise. Secondly, particles serve to disambiguate clauses that are multiply ambiguous, e.g. ruling out a polar exclamative reading in favor of an optative reading. Thirdly, by virtue of their disambiguating effect, particles end up functioning as a reliable strategy for marking and thus licensing a particular intended speech act. The proposal that I presented extends beyond optatives and provides us with a new generalized view for dealing with particles that co-determine a speech act in a language like German.

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